

CITY OF LEEDS

REPORT ON THE Health & Sanitary Administration OF THE CITY FOR THE YEAR 1946

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Medical Officer of Health.



62500

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„ W. SPENCE.	„ ALICE JOLLY.
„ LIZZIE NAYLOR, J.P.	„ W. WEBSTER, J.P.
„ W. M. JONES.	

PUBLIC HEALTH STAFF.

Medical Officer of Health and Chief Tuberculosis Officer	J. JOHNSTONE JERVIS, M.D., Ch.B., D.P.H.
Deputy Medical Officer of Health ..	F. R. DENNISON, M.D., M.B., B.S., D.P.H. (to 13.7.46).
Do. do. ..	J. F. WARIN, M.D., Ch.B., D.P.H. (from 19.8.46).
Assistant Medical Officer of Health for Maternity and Child Welfare and Medical Officer of Infants' Hospital	CATHERINE MARGARET GRAY, M.B., Ch.B., D.P.H.
Deputy do. ..	MARION KNOWLES, M.B., Ch.B.
Assistant Medical Officers for Maternity and Child Welfare	SARAH N. S. BARKER, M.B., Ch.B., L.R.C.P., M.R.C.S. MARIA L. BELDON, M.B., Ch.B. EUGENIE CLARE ILLINGWORTH, B.Sc., M.B., Ch.B., M.R.C.S., L.R.C.P. JESSIE I. ROSIE, M.B., Ch.B., D.P.H. MARY SCHOFIELD, L.R.C.P., M.R.C.S. D.P.H. (to 31.5.46). M. N. M. PAULIN, M.B., Ch.B., B.A.O., D.P.H. (from 8.10.46).
Chief Clinical Tuberculosis Officer ..	F. RIDEHALGH, M.A., M.B., B.Ch., M.R.C.S., L.R.C.P.
Senior Assistant Clinical Tuberculosis Officer	D. A. HERD, L.R.C.P., L.R.C.S.
Assistant Clinical Tuberculosis Officer	W. GUTHRIE, M.B., Ch.B., L.M.S.S.A.
Temporary do. do. ..	H. GRUNWALD, M.D. (Vienna).
Assistant Medical Director, Mass Miniature Radiography	M. G. MAGAN, M.B., Ch.B., D.M.R. (to 31.3.46).
Do. do. ..	J. ASPIN, M.A., M.D., D.M.R.D. (from 2.9.46).
Dental Officer for Maternity and Child Welfare and Tuberculosis ..	H. HILTON, L.D.S.
Municipal General Hospitals, Medical Director	W. MCINTOSH, M.B., Ch.B. (from 1.5.46).
Inner Group of Hospitals— St. James's Hospital (North and South) Medical Superintendent ..	W. MCINTOSH, M.B., Ch.B. (from 1.5.46).
Outer Group of Hospitals— St. Mary's Infirmary, St. George's Infirmary, Cookridge Hospital, Deputy Medical Superintendent..	J. W. AFFLECK, M.B., Ch.B., F.R.F.P.S., D.P.M. (from September).

Medical Superintendents—

Seacroft Emergency Hospital ..	E. C. BENN, M.B., Ch.B., D.P.H. (<i>Serving with U.N.R.R.A.</i>)
Acting Medical Superintendent ..	A. A. DRIVER, M.D., M.B., Ch.B., D.P.H. (<i>to August, 1946</i>).
Infectious Diseases Hospital—	
Acting Medical Superintendent	HESTER E. DE C WOODCOCK, M.B., Ch.B., D.P.H.
Killingbeck Sanatorium—	
Acting Medical Superintendent	A. A. DRIVER, M.D., M.B., Ch.B., D.P.H. (<i>from August, 1946</i>).
Gateforth Sanatorium—	
Resident Medical Officer ..	A. C. MEEK, M.A., M.B., Ch.B., D.P.H.
Venereal Diseases Officer	R. LEES, M.D., F.R.C.P. (<i>from March</i>).
Assistant Medical Officers for Venereal Disease	B. WALKER, M.A., M.R.C.S., L.R.C.P. (<i>to November</i>). W. FOWLER, M.B., Ch.B. J. R. G. BUCHANAN, M.B., Ch.B. (<i>from December</i>).
City Bacteriologist	J. W. McLEOD, F.R.S., M.B., Ch.B.
Chief Veterinary Officer	J. A. DIXON, M.R.C.V.S. (<i>Retired</i> <i>30.9.46</i>).
City Analyst	C. H. MANLEY, M.A., F.R.I.C.
Chief Sanitary Inspector	J. GOODFELLOW, M.R.San.I., A.M.I.S.E.
Deputy do.	N. HANCOCK, M.R.San.I.
Superintendent of Disinfecting and Disinfestation Station	D. FERGUSON.
Superintendent Health Visitor ..	MATHILDE BURKE.
Supervisor of Midwives	DOROTHY HUMPHREYS.
Superintendent of Works and Buildings	H. R. HUDSON, A.I.A.S., M.R.S.I.
Administrative Assistant	P. A. WOODCOCK.
Principal Clerks—	
Finance	A. R. BEST.
Statistics	W. B. NOTTAGE.
Sanitary	C. STEAD.
Infectious Diseases	J. K. BEEVERS.
Food and Drugs	S. TITTERINGTON.
Health Clinic	F. H. WOOD.
Hospitals	J. FOLKARD.
Secretarial	W. B. LOFTHOUSE.

Special Inspectors including Smoke, Lodging-houses, Food and Drugs, Dairies, Meat, Workshops, and Diseases of Animals	14
Laboratory Assistant	1
Sanitary Inspectors	24
Vaccination Officers	1
Female Sanitary Inspectors	2
Health Visitors	34
Midwives	37
Sunlight, Orthopædic and Dental Nurses	4
Tuberculosis Visitors	7
Dispensers	9
Physiotherapists	3
Clerical Staff and Almoners	92
Maintenance Staff	251
Ambulance and Disinfecting Staff	19
Central Ambulance Station	47
Flushing Staff	4
Disinfestation	16
Rat Catchers	4

City of Leeds.

To the Chairman and Members of the Health Committee.

Ladies and Gentlemen,

I have pleasure in submitting the Annual Report on the health of the city for the year 1946. This is the 31st Report for which I have been responsible, three as Acting Medical Officer of Health in the absence of my predecessor, Dr. Wm. Angus, on active service 1916-18, and twenty-eight as Medical Officer of Health. Being the last I shall write, this Report includes a foreword giving a review of the public health of Leeds during the last thirty years.

Though the year 1946 was the first full year of peace, many of the wartime restrictions remained, while others including the rationing of bread, were added. It was, therefore, not a normal year in any sense of the term; nevertheless the health of the city remained good. The birth-rate (20·5) was the highest since 1921 and the infant mortality rate (41) the lowest on record. The maternal mortality rate, that is the death-rate of mothers from conditions associated with pregnancy and childbirth (1·18) likewise touched a figure lower than any previously reached. Tuberculosis, both pulmonary and non-pulmonary, caused fewer deaths than in any previous year in the city's history and the combined death-rate from all forms of the disease (0·60) was the lowest on record.

As regards infectious sickness, the year was entirely free from epidemics.

There is, however, another side to the picture which is not so bright. As is usual after a war, Venereal Diseases showed an increased prevalence, both cases and attendances at the Venereal Diseases Centre rising steeply. A similar rise was experienced after the first world war. Cancer maintained its hold on the population, the death-rate for the year being 1·99 per 1,000 of the population which, though slightly lower than the rate for last year, was 20·6 per cent. higher than the rate of ten years ago.

After almost seven years as Infectious Diseases Hospital and Emergency Medical Service Hospital respectively, Killingbeck and Seacroft reverted to their original usage in August, 1946, Killingbeck for the treatment of pulmonary tuberculosis and Seacroft for infectious diseases. Since reversion both institutions have been severely handicapped by shortage of nursing and domestic staff and have only been able to put a proportion of their beds into commission. In my last Report I alluded to the shortage of nurses at all the Municipal Hospitals and expressed the hope that a solution to the problem might be found during the ensuing year. That hope has not been realised. On the contrary, the situation has worsened and it has been necessary in consequence to restrict admissions to some of the Hospitals and in others actually to close down some of the wards.

The first portion of the scheme for the extension of Gateforth Sanatorium was completed and opened for occupation during the year, thus increasing the beddage from 54 to 68 and enabling the reservation at Middleton Sanatorium of the West Riding County Council to be discontinued. Work on the second portion of the scheme has been in progress during the greater part of the year and at the time of writing is nearing completion. The accommodation of the extended Institution will be 101 beds.

The Infants' Hospital evacuated to Knaresborough during the war returned to Leeds during the early part of the year and was temporarily accommodated at the Bishop Cowgill Memorial Institute, Armley, a building requisitioned for the accommodation of the chronic sick during the active stage of the war and no longer required for that purpose. The building does not lend itself very well to the nursing of sick children but was the only place available at the time of the transfer. Attempts have been made to find more suitable accommodation but without success. When the requisition ends, as it must do very shortly, unless in the meantime a suitable building is found, it looks as though the Infants' Hospital must come to an end as a separate unit, and the children be accommodated in St. James's Hospital or one of the other Municipal Hospitals.

The outstanding event of the year was the passing into law of the National Health Service Act, which completely alters the administrative structure of the Health Services of the country and makes other

important changes. As a result the Local Authority will lose its hospitals, sanatoria and clinics—other than the maternity and child welfare clinics—which, in future, together with consultants and special ists, will come under the control of the Regional Hospital Board. The Local Health Authority—to give it its new title—will continue to be responsible for the domiciliary midwifery service, the care of mothers and young children, vaccination and immunisation and the provision of a service of domestic helps. Certain new functions will be assigned to it, the most important of which will be the provision of Health Centres, the establishment of a Home Nursing Service, the Prevention of Illness, Care and After Care and the provision of a complete Ambulance Service. General Practice will be the concern of another new body, the Executive Council, to which is given the duty of ensuring that every member of the community has a doctor to attend him or her during sickness.

Under the Act^o the association between the Local Health Authority and the General Practitioner will be very intimate and will be effected through the Midwifery and Home Nursing Services, through Vaccination and Immunisation and the Ambulance Service, but particularly through the Health Centres where the preventive and the curative will meet and both aspects of Medicine be practised and developed. Here in the Health Centre it is hoped former differences and rivalries will be forgotten and a new spirit of friendly co-operation be established between the Medical Practitioner and the Local Health Authority. There may be—no doubt will be—difficulties in the early stages, but with goodwill on both sides, these should gradually disappear. The new Act certainly represents a great and important experiment in Social Medicine and it will be interesting to see how it works out in practice and what advantages it gives over the existing system.

Since the issue of my previous Report, Mr. J. A. Dixon, the Chief Veterinary Officer, has retired after 41 years service in the Department. When he first joined the staff in the opening years of the century, food (including milk) inspection and control were of a very elementary character and outbreaks of disease from the consumption of dirty, unsound and infected food were frequent.

By patient and unremitting effort the old attitude of indifference and easy complacency on the part of those engaged in the handling and distribution of the people's food—milk producers and distributors, butchers, slaughtermen, fish and chip merchants, restaurateurs and the manufacturers and purveyors of ice cream—was broken down, and where before there was no hygiene, cleanliness and purity came to be the overruling considerations. Mr. Dixon was the first of his line in the Department, and the last, for it has been decided not to replace him, but to him goes the honour of having built up and perfected one of the most important sections of the Public Health Service in the city.

Shortage of labour and materials has prevented many plans and projects aimed at the further development of the hospitals and other Health Services of the city coming to fruition. Doubtless when conditions improve, and the time is more propitious, they will be revived, though possibly not within the same framework nor under the same authority.

In concluding this letter, my closing words must be of warm appreciation of all the kindness and help freely and generously afforded me by every member of the staff during the twenty-eight years I have been Medical Officer of Health of the city. In particular I wish to acknowledge my indebtedness to my Deputy Medical Officers, the Senior Medical Officers in charge of the various sections, my chief administrative assistant, and my private secretary for their unfailing support and loyalty. I must also thank the Chairmen, Deputy Chairmen, the Chairmen of Sub-Committees and members of the Health Committee for their friendship, forbearance and helpful co-operation at all times throughout the whole period of my service.

I am,

Ladies and Gentlemen,

Your obedient servant,

J. JOHNSTONE JERVIS.

*Public Health Department,
Leeds, 1.*

November, 1947.

FOREWORD

A REVIEW OF THE PUBLIC HEALTH SERVICES OF THE CITY DURING THE THIRTY-ONE YEARS 1916-1946

" Though with great difficulty I am got hither, yet now I do not repent me of all the trouble I have been at to arrive where I am. My sword I give to him that shall succeed me."

" THE PILGRIM'S PROGRESS."

The population of Leeds in 1916, the first complete year of my service with the Leeds Corporation, was estimated by the Registrar General to be 446,349. At that time the country was in the middle of the first world war and therefore the estimate is not entirely reliable. At the previous census in 1911 the population was 445,550 and ten years later in 1921, when the next census was taken, it was 465,500. At the 1931 census it had risen to 486,400 and just before the start of the second world war in 1939 it was estimated to be 497,000. There was no census in 1941 because of the war and the Registrar General's estimate for that year, excluding members of the Services, was 471,930 which rose in 1946, after the close of hostilities, to 481,570. These are only estimates and the true population cannot be accurately ascertained until another census has been taken. It would appear, however, that in the thirty-one years the increase has not exceeded 40,000 and may even have been less. Failure to reach the half million mark has been a source of disappointment, especially as the neighbouring town of Sheffield reached and passed that mark at the end of the first world war. The constitution of the population has undergone a change since 1916 in that to-day it has more old people and fewer boys and girls. It has thinned out at the young end of the scale and become correspondingly dense at the old end. For this the slump in the birth-rate that took place between 1928 and 1938, combined with a low general death-rate, is partly responsible.

The average birth-rate for the period 1929-1938 was 14.9 and the death-rate 13.5—a small margin—while the average natural increment of population, that is the excess of births over deaths, was no more than 690 as compared with over 2,300 for the previous ten years.

Birth-rate.—The highest birth-rate recorded during the period (1916-1946) was 25.0 in 1920, immediately after the close of the first world war and the lowest, 13.7 in 1933. Only on four occasions, including 1920, did the rate rise above 20. On two occasions, 1918 and 1929, the death-rate exceeded the birth-rate; both years were influenza years. Perhaps the most outstanding feature of the period has been the steady reduction in the size of family, especially noticeable among the professional classes, though all classes were affected. The decline of the family is good neither for the community nor the State. The effects were very obvious during the late war and still are and will continue to be until this bulwark of English life and security is restored.

Death-rate.—The average death-rate for the first five years of the period was 16.5 and for the last five 13.7, a reduction of 17 per cent. Had it not been for the influenza epidemic in 1918, the quinquennial average would undoubtedly have been less. Taking the period as a whole, while the trend has been downward, the rate has remained remarkably constant, except for the influenza years, 1918 and 1929, never exceeding 16.2 nor falling below 12.4. Where a change has taken place—and it is a change of the utmost significance—is in the distribution of the deaths among the various age groups. The aim of the health services is not to prevent but to postpone death for as long a period as possible; in other words to save the young that they might have an opportunity of growing old. In 1916 27.2 per cent. of the deaths were in the first five years of life, that is to say young children; 3.5 per cent. between 5 and 15; 4.1 per cent. between 15 and 25; 12.7 per cent. between 25 and 45; 24.2 per cent. between 45 and 65, and 28.2 per cent. over 65; in 1946 the corresponding figures were 7.0, 0.7, 1.5, 6.9, 26.8 and 57.0 per cent. The implication of the change is that from being a hazardous period in the human span of life, childhood has become comparatively safe. There was a time when it was openly said that Leeds was not a safe place for a baby to be born into. But that was before 1916, though even in that year the survival

rate was still no more than 87 out of every 100 children born. In 1946 the figure had improved to 96. Taking the first fifteen years as representing childhood, the wastage due to death has been reduced in the thirty-one years by no less than 76.1 per cent. In the same period, the rate of death in persons over 45 years has gone up by 34.4 per cent. and of the total deaths at all ages upwards of 48 per cent. are in persons of 65 years and over. Owing to the ageing population this is what is to be expected with the inevitable corollary of a rising general death-rate and an increase in the mean age at death. The mean age at death in 1916 was 41 and in 1946 64, which put in another way means that in the period the expectation of life has risen by 23 years.

Causes of Death.—The main causes of death in 1916 in order of numerical importance were heart disease, tuberculosis, bronchitis, pneumonia and cancer. In 1946 they were the same except that bronchitis was replaced by cerebral hæmorrhage and there was a change in the order, cancer moving up to second place and pulmonary tuberculosis dropping to fifth place. Cancer has steadily and inexorably increased its hold on the population. In 1916 it accounted for 500 deaths and in 1946 for 960 or nearly double the number. It is sometimes said that the increase is apparent and not real and that it is due to improved diagnosis and the greater age to which the population is living. But whether apparent or real makes little odds to the general position which is worsening year by year and which in time, if the increase continues at the same rate, will become so serious as to threaten the whole structure of the nation's health and security. Search for the cause has gone on for years and is still going on to-day in numerous centres all over the world by the most able medical scientists but so far without result. The only hope for the victim of cancer is still early diagnosis and treatment by the surgeon and/or the radiologist.

Tuberculosis is dealt with in a separate paragraph.

Infectious Diseases.—In no section of public health activity have greater changes taken place in the period under review than in infectious diseases, both as regards incidence and mortality. The diseases specially affected were diphtheria, scarlet fever, typhoid fever, measles and whooping cough, details of which appear in the table on page 19. About the middle of the period diphtheria

became epidemic and continued so for three years during which 4,623 cases were notified and there were 304 deaths. The effect was to intensify the immunisation campaign started a few years earlier but languishing for lack of popular support and give it fresh impetus. In one year (1935) over 30,000 children of all ages were immunised, and though this rate was not maintained, the campaign went steadily forward until in 1946 the percentage of children under 15 years protected against the disease reached the very satisfactory figure of 78 (58 per cent. under 5 years). As a corollary, in 1945 the incidence fell to 149 cases with 2 deaths and in 1946 to 132 cases with 6 deaths.

Scarlet Fever continues to be a cause of sickness among children, not significantly less than in 1916, but the type has become so mild that the mortality rate for the last two years (1945 and 1946) has been nil. In five years (1942-46) there have been only seven deaths from this disease.

Except for a few sporadic cases, typhoid fever has practically disappeared. In the last five years there have been 22 cases with 2 deaths which is in marked contrast to the first five years of the period when there were 189 cases with 33 deaths. Improved sanitation, the abolition of wells and casual water supplies in the outlying parts of the city and the better supervision of milk and other foods have been responsible for this result.

Measles, like scarlet fever, continues to invade the child population of the city at periodic intervals but whereas at the beginning of the period (1916-20) it had a case mortality of 4 per cent., in the last five years (1942-46) the case mortality was no more than 0.2 per cent.

Though whooping cough does not show up quite as well as measles there has been an equally significant improvement in the mortality from this disease. In the opening five years of the period (1916-20) whooping cough was responsible for 410 deaths and in the last five years (1942-46) 75 deaths.

One might go on to speak of erysipelas, pneumonia, puerperal fever and ophthalmia neonatorum, all of which, thanks to the new chemotherapy, as causes of death have been reduced to relative unimportance and no longer are the dreaded diseases they once were.

As might be imagined, the principal outcome of this victory of preventive medicine over infection has been to empty the wards of the fever hospital or at any rate to throw a large number of the beds out of commission. As the city cannot afford to have an institution of the size of Seacroft standing partially empty, it has been decided to open its doors to a wider range of cases and for this purpose to split up the large wards into a number of single cells or cubicles. This work is now in progress.

Tuberculosis.—From infectious diseases to tuberculosis is but a short step. Indeed tuberculosis belongs to the same group though very different in its behaviour and social implications. If the term "social medicine" has any significance, that significance is to be found in this disease which devastates family and communal life as no other disease does. At the opening of the period under review an anti-tuberculosis scheme was in being which was partly municipal and partly voluntary, the former represented by the Tuberculosis Dispensary in New Briggate and Killingbeck Sanatorium and the latter by a small dispensary in Great George Street near the Infirmary and two small sanatoria, Armley House and Gateforth. The voluntary body was called "The Leeds Association for the Prevention and Cure of Tuberculosis." Soon after the first world war, the Corporation took over, for an agreed sum of money, its institutions and staff and the Association passed out of existence. Dr. H. de C. Woodcock, who had been associated with the voluntary body from its inception, became the first Tuberculosis Officer (part-time) and, at first alone, later with the help of an Assistant Medical Officer, assumed responsibility for the work of the Tuberculosis Dispensary. Great George Street Dispensary and Armley Sanatorium were closed and the work concentrated in the Municipal Dispensary, Killingbeck and Gateforth Sanatoria. As the work expanded, which it rapidly did, all these institutions had to be extended and the staff increased. A whole-time Chief Clinical Tuberculosis Officer was appointed in 1924 and the staff of the Dispensary now consists of the Chief Clinical Tuberculosis Officer, three Assistant Medical Officers, Health Visitors, Almoners and Dentists. Killingbeck has been modernised—a block of 100 beds for women, a new nurses' home and a rehabilitation centre having been added. Gateforth likewise has been extended and improved and now has accommodation for 101 patients,

In 1944 a Mass Radiography Unit to serve Leeds and the surrounding region was acquired and has been housed in a special department at St. James's Hospital (North). The unit is in charge of a Medical Director who has, to assist him, a special staff of technicians, clerks, etc.

When the Voluntary Association was dissolved it was formed into a Care Committee which deals with the social side of the Tuberculosis scheme.

In 1916 the deaths from tuberculosis of all forms numbered 963 corresponding to a death-rate of 2.16; thirty-one years later these figures had been reduced by 72.2 per cent. to 288 and 0.60. Notified cases of the disease have also undergone a reduction though not quite so marked as the deaths. In 1916 the total notified cases of all forms was 1,349 and the case-rate 3.03 as compared with 697 and 1.45 in 1946, a reduction of over 50 per cent. in the rate and just under 50 per cent. in the cases.

This triumph over tuberculosis, the disease that used to be spoken of as "The Captain of the Men of Death," is the greatest achievement of Preventive Medicine in this century. In Leeds it is certainly the high-light of our public health effort and something of which the city can be justly proud. Though much still remains to be done before victory is complete, and the disease is fully and finally eradicated, the issue is no longer in doubt and there is every hope that within a reasonable period of time the Great White Scourge will take its place with the Black Death among the diseases of the past.

Venereal Diseases.—Though venereal disease is one of the oldest of human afflictions there was no venereal diseases service until 1917. In that year the Venereal Diseases Regulations came into being and the Venereal Diseases Centre at the Leeds General Infirmary was inaugurated. The object was to deal with the rise in the incidence of these diseases brought about by the war of 1914-18. For the first few years of its existence the Centre was kept busy and many cases passed through its doors but with the return of peace and the restoration of life to its normal tempo the incidence dropped until in 1938 it had reached what might be called the normal minimum. The opening of the Second World War in 1939 again forced up the incidence and the number of

cases continued to rise until 1945 when hostilities ceased. Though still well above peace time level, the wave of new cases has already begun to recede, and no doubt will continue to do so until normality once more is reached. In 1920 new cases of syphilis numbered 1,093 and gonorrhœa 603. The corresponding figures 10 years later were 355 and 643 while in 1940 they had fallen to 282 and 495. In 1946 the figures had again risen to 425 and 819. The staff of the Centre right up till 1942 was Dr. J. P. Bibby, the Venereal Diseases Officer, with a male assistant (full-time) and a female assistant (part-time). In 1945 the Centre suffered a serious loss by the death of Dr. Bibby, a great clinician and teacher, who had made Venereal Diseases his study and the Centre his life's interest. The re-organisation which followed his death resulted in a complete remodelling of the Centre with an augmented staff, medical and lay, including a whole-time social worker.

Maternity and Child Welfare.—Thirty-one years ago there was no maternity service as we know it to-day and infant welfare was just starting. In 1915 my predecessor, Dr. W. Angus, wrote in the Annual Report for that year . . . "There is so far no ante-natal clinic at which medical advice and treatment are regularly available for expectant mothers" and went on to indicate that it was his intention to remedy this defect with as little delay as possible. The following year ante-natal clinics were inaugurated at five of the eight infant welfare centres then existing but the number of expectant mothers taking advantage of them was very small (208) in proportion to the number of live births (9,432) and the total attendances numbered no more than 908. From that time the number of clinics steadily grew until in 1946 they reached the figure of 18 while the number of expectant mothers in attendance in that year rose to 12,222 and the total attendances made to 43,659. The number of live births in 1946 was 9,886 and the number of expectant mothers attending for the first time 9,359. It will therefore be seen how great has been the progress made in that relatively short space of time. To-day, so popular have these institutions become that to meet the demand without overloading any one clinic entails a considerable amount of planning and organisation.

In 1916, domiciliary midwifery was in the hands of 65 practising midwives of whom 36 were trained and 29 untrained. Together they attended 4,318 or 45.1 per cent. of the total births registered

in the city in that year. In actuality the majority of the 4,318 were delivered by untrained women. In a note made in the Annual Report of the Medical Officer of Health for 1916 I deplored the number of untrained midwives and pleaded for an improvement in the status, education and pay of the midwife. That improvement came in 1936 when, by the Midwives Act of that year, the whole structure of the Midwifery service was changed and for the first time it was possible for the midwife to become a paid municipal servant with status and pay equal to that of the Health Visitor. Since then not only has there been no untrained midwife practising in the city but a large proportion of the trained midwives are also state registered nurses. In contrast with 1916, in 1946 there were 127 names on the midwives' register, of whom 36 were municipal midwives, 6 attached to the Leeds Maternity Hospital and the remainder in institutions or independent practice. Midwives were responsible for a little over 30 per cent. of all the deliveries that took place in the city in that year. This comparatively small number is explained by the growing tendency among women to have their confinements in institutions or nursing homes. In 1946 just under 65 per cent. of the total births that took place in the City were in institutions, as compared with 11.5 per cent. in 1917.

Whereas in 1916 the number of hospital beds provided for maternity was 87, in 1946 the figure had increased to 260 or about three times as many. And still the demand grows and at the present time is much greater than the supply.

The Maternal Mortality Rate in the thirty-one years has undergone a remarkable change. In 1916 it was 4.34 per 1,000 live births and in 1946 it had fallen to the very low figure of 1.21 per 1,000 live births or 1.18 per 1,000 live and still births. A drop of 72 per cent. is a notable achievement which amply justifies the time, labour and money expended on the service. For this fine result four factors are mainly responsible, viz. (i) the greater skill and competence of doctor and midwife, (ii) the use of special drugs which aid the parturient woman to resist infection, (iii) the improved nutrition of the mother and (iv) the better facilities for her confinement.

Turning to the Infant Welfare side of the service the contrast between the beginning and the end of the period is even more striking. In 1916, out of every 1,000 babies born, 129 died before reaching their first birthday. In 1946 the figure was 41 or a little less than one-third of the earlier figure. Admittedly that was for

one year only and it would be unfair to draw conclusions from the rate of a single year knowing how sensitive and subject to fluctuations the infant mortality rate is. From the table on page 19, however, it will be noted that the average rate for the past five years has been 49 or 62 per cent. below the 1916 figure. The saving of infant life represented by the decline in the rate during the thirty years may be more dramatically shown by applying the 1916 rate to the 1946 total of live births when it will be found that instead of 401 (the actual number of infants under one year who died in 1946) the number would have been 1,275 or a saving of 874 lives. The total lives saved during the period is estimated to be 11,400. Roughly one-half of the total deaths of infants under one year take place during the first month of life. A special rate known as the neo-natal mortality rate has been invented to express this loss. In 1916 this rate was 46.3 and in 1946, 28.8, a reduction of 37.8 per cent. not so marked a fall as in the infant mortality rate itself, because of the greater difficulty in controlling the causes of death at this period, but nevertheless greater than was thought possible 20 years ago.

I cannot close this paragraph without an allusion to the Leeds Babies' Welcome Association, to whose efforts the inauguration of the whole service is due. The Association, which is run on a voluntary basis, was the conception of Mrs. Ina Kitson Clark, now Dr. Ina Kitson Clark who founded it in 1908. It started in a small way with one or two "Welcomes" in the more congested parts of the city but rapidly expanded and in 1915, when it linked up with the Public Health Department of the Corporation, it possessed eight "Welcomes," each "Welcome" in charge of a paid nurse. With the exception of these nurses and a supervisor, all the helpers, including the Medical Officers who were general practitioners employed part-time, were unpaid. After amalgamation with the Public Health Department, a health visitor, in addition to the nurse, was attached to each "Welcome" and the whole scheme was placed in charge of a whole-time Medical Officer, appointed and paid by the Corporation who also took over the responsibility for paying the health visitors and nurses, leaving the Association with the duty of providing and maintaining the premises in which the infant clinics were held. Throughout the whole period the relationships between the Association and the Department have been of the happiest and under the combined ægis of the two bodies the work has prospered.

Municipal Hospitals.—It was not until 1930 that the Corporation possessed hospitals for the reception and treatment of the sick other than the infectious sick. In that year the Board of Guardians ceased to exist and their powers and duties were transferred to the Public Assistance Committee of the Corporation set up under the Local Government Act of 1929. Among the institutions which changed hands were St. James's Hospital, Beckett Street Institution (later known as North Lodge), Holbeck Infirmary (South Lodge), Branley Infirmary and Hunslet Infirmary, Rothwell. All these continued to be run as Poor Law Institutions until 1934, when, with the exception of North Lodge and South Lodge, they were appropriated and became municipal general hospitals and placed under the control of the Health Committee. Bramley Infirmary was re-named St. Mary's Infirmary, while Hunslet Infirmary became St. George's Infirmary. The total beddage represented by the group was 1,724, of which St. James's Hospital with 1,296 was the largest, the most comprehensive and the most fully developed unit. The group was further enlarged during the period by the acquisition of Cookridge Hospital (98 beds) in 1943 and the appropriation in 1944 of North Lodge (763 beds) under the name of St. James's Hospital (North). Under the wise direction of Dr. John Dick, the Medical Superintendent of St. James's Hospital and Medical Director of Municipal General Hospitals, whose untimely death in 1945 was much lamented, the various constituent units, in particular St. James's Hospital, were further developed and modernised. Of the group, St. James's Hospital (South) alone admits acute cases, St. James's Hospital (South) and St. Mary's Infirmary each have maternity sections while the remaining members are devoted to the care of the chronic sick. St. James's Hospital has recently been recognised by the University of Leeds as part of its Medical Teaching School. It is also a recognised training school for nurses of both sexes. St. James's Hospital (North) and St. George's Infirmary are approved training schools for assistant nurses.

Ambulance Service.—In connection with the care of the sick a word must be said about means of transport.

At the beginning of the period the only complete ambulance service in being was that maintained by the Corporation for the transfer of cases of notifiable infectious disease from their own homes to the infectious diseases hospital at Seacroft. Later this was

extended to include cases of tuberculosis going to Killingbeck and Gateforth Sanatoria. For ordinary sickness the only provision was a small fleet of four ambulances belonging to the Leeds Board of Guardians (subsequently the Public Assistance Committee), and housed at the Institution in Beckett Street. These were available for poor people only entering one or other of the Poor Law Hospitals and Infirmaries. Accidents were the concern of the Police who kept a small number of vehicles for dealing with such cases. In 1937 the Health Committee took over the whole of these ambulances from the Public Assistance Committee and the Police and established a complete ambulance service with headquarters at the Depôt of the Transport Committee in Donisthorpe Street.

It was the intention of the Health Committee to build a Central Ambulance Station on a site off Marsh Lane acquired for the purpose and all was in readiness for starting building operations when war broke out and put an end to the project for the time being. At the end of the war the headquarters of the Service were removed to the Torre Road Depôt of the Transport Committee where they now are. The fleet consists of 16 ambulances and 5 cars for sitting cases. The total number of cases dealt with in 1946 was 19,088 by ambulance and 6,638 by sitting-case cars.

Environmental.—From the purely personal side of the work of the Public Health Department I now turn to the environmental—food, housing and sanitation.

Food.—In the thirty-one years covered by this review the supervision of the food of the people has improved both in adequacy and efficiency. Food may be unsound, lacking in essential ingredients or contain substances that are foreign and deleterious. Whatever the deficiency, the health of the consumer is prejudiced and in some cases may even be seriously undermined. Nor is it wholly a question of composition and freshness. Methods of production, storage and handling are also important if disease and other ill effects are to be avoided.

Take milk, for example, than which no food is more important and none more susceptible to sophistication and contamination. Standards have been laid down to ensure both quality and safety but it is only by constant vigilance and the rigid application of the law that observance of these standards can be assured. In the Report of the Medical Officer of Health for 1915, out of a special

series of 267 samples taken empirically from vendors in all parts of the city, 44·6 per cent. were found not to be genuine, or in other words had been adulterated by the addition of water or the removal of fat—a deplorable state of affairs. Contrast that with the report of the City Analyst (Mr. C. H. Manley) for 1945, where he states that out of 1,697 samples only 5·3 per cent. failed to comply with the legal standard; in 1946 out of a total of 1,812 samples, the percentage found to be adulterated was 6·0. In 1916 all the milk was distributed from open cans; now the open can is almost a thing of the past and has been replaced by the sealed bottle. In 1916 all milk sold was in a raw state; now 85·90 per cent. has been submitted to heat treatment, that is pasteurised, and may be considered to be safe.

Meat is another important article of the people's diet which readily becomes unsound and is frequently diseased. By regular inspection at the time of slaughter and subsequently during sale in the shops the risk of bad or suspicious meat reaching the consumer is reduced to a minimum. In 1916 the weight of beef, veal, mutton and pork condemned as unsound and destroyed was 93,643 lbs. as compared with 184,746 lbs. in 1946. Even allowing for the increase in population in the interval, the contrast is striking. In 1915, following a serious outbreak of food poisoning traced to the eating of contaminated pork pies, the Medical Officer of Health in his report of the outbreak bewailed the absence of powers of inspection of food preparing places. This deficiency has since been made good and now all premises where food is made up or prepared are subject to regular inspection. And so on one might go to deal with such things as ice-cream, fish and chips and preserved and cooked foods of all kinds in the preparation and sale of which conditions have improved out of all recognition. In this connection I should like to pay tribute to the work of Mr. J. A. Dixon, the Chief Veterinary Officer of the Corporation for 41 years, who founded and built up the Food Section of the Department and himself was its head during the whole period of its existence until his retirement in 1946.

Housing.—In every city the housing of the people presents a problem but in none more so than in the City of Leeds where the unsatisfactory back-to-back design was adopted by the builders of a century ago and for some unexplained reason persisted in long

after it had been abandoned by other cities. Though the modern type of back-to-back house makes a reasonably good dwelling, there is nothing to commend the oldest type which is thoroughly bad in every respect and should be swept away. In the survey of 1918 suggestions were made for dealing with some of the worst slum areas and a start had actually been made on one of these when the financial crisis that followed the first world war put a stop to further progress and the work was suspended. Then came the Housing Act of 1930 (The Slum Clearance Act) which gave the Corporation wider powers than it had previously possessed for dealing with slum property. Under this Act a fresh survey of the city was made and a programme prepared which included the whole of the 30,000 back-to-back houses of the oldest type. The programme was accepted by the City Council and in September 1931 the first official representation was made. From that date onwards the work continued without intermission until brought to a stand-still by the opening of the second world war in 1939, by which time rather less than half the programme had been dealt with though only about 11,000 of the houses had actually been demolished. Thus came to an untimely close a project which, had it been completed, would have made out of the old Leeds a new and healthier city. As it is the municipal housing estates, including the Quarry Hill Flats which grew out of the scheme, have made a notable contribution to the health of the city and have greatly improved its amenities. The war has not made the housing problem of the city any easier, indeed, on the contrary, it has added to its difficulties and complexities and it would be vain to pretend that conditions to-day are satisfactory. Lack of labour and material for necessary repairs have accelerated deterioration and decay in practically every class of property and a survey made now would probably reveal a state of affairs quite as bad as that which existed at the beginning of the period. Shortage of houses too, has had the effect of increasing overcrowding; in itself an important factor in the creation of slums.

Sanitation.—Here the field is so large that I can deal with only one or two of the most important features. The replacement of the horse by the internal combustion engine has had the effect of giving the city cleaner streets and reducing the stables and manure-pits to a negligible number. Manure being a favourite breeding ground for flies and other insects there has been a marked

reduction in the fly population as a result of the change and a corresponding fall in the incidence of infantile diarrhoea and other fly-borne infections. In 1916 the rate of death per 1,000 births among children under two years of age was 22·7; in 1946 the figure was 5·4, the lowest on record, a reduction of 76·2 per cent. on the 1916 figure. From 1916 to 1930 or thereabouts there were regular outbreaks of epidemic or summer diarrhoea in the third quarter of the year and the disease was one of the most important contributory factors in the Infant Mortality Rate. Since 1930 these outbreaks have greatly diminished both in size and frequency, and though each year still brings its quota of deaths from gastro-enteritis, a large proportion of these deaths has no association with sanitation. In the same connection ash-pits (overground and underground) were the common method in the working-class districts of the city—indeed, as far as the back-to-back house is concerned, the only method—of disposing of household refuse. In 1916 the number of these ash-pits was upwards of 8,000 and because of their size and the volume of refuse they could accommodate they were not only a nuisance in the sanitary sense but an attraction for flies, rats and other vermin. Powers to abolish them and require the provision of metal ashbins in substitution were obtained by the Corporation in the Leeds Corporation (Consolidation) Act, 1905, but only if they had been neglected and allowed to fall into disrepair. Wider powers, including the authority to pay part of the cost, were acquired by the Leeds Corporation Act, 1930. Unfortunately, owing to the financial crisis then prevailing the application of these powers had to be delayed till 1935. In that year however a comprehensive scheme of ash-pit abolition was launched and so good was the progress made that by 1939 when war broke out and put an end to the work 1,987 ash-pits had been dealt with at a total cost to the Corporation of £4,412 17s. 11d.

Like most northern cities and towns, Leeds did not adopt the water carriage system of sewage disposal till well on in the 19th century. When it did decide to replace the open privy and the pail closet by the water closet it allowed to be installed in the working-class areas of the city a type called the "trough water closet" with nothing to commend it except that it saved water and was relatively easy to instal. As regards the open privy and the pail closet the Corporation already possessed powers under the

Public Health Act to require their abolition and substitution by the modern pedestal water closet. Not so the trough closet; except where the appliance was so dilapidated as to be a nuisance, there were no powers to deal with this type of convenience. By the Leeds Corporation Act of 1927 this deficiency was remedied and the city vested with authority to require the conversion of all appliances of this sort and to make a grant to property owners in aid of the cost. From that time onward the tempo of conversion increased until by 1946 only 50 remained out of a total of 9,725 in existence at the beginning of the period. During the same 31 years the number of open privies was reduced from 1,026 to 146 and pail closets from 185 to 138. It should be explained that these obsolete types still remaining are situate in the landward part of the city and in areas that have been condemned and are awaiting demolition.

There is one section of this sanitary field on which much labour and thought have been expended but which has failed to yield the results hoped for. I refer to smoke. In 1916 Leeds lived and moved and had its being (and some would add prospered) in a constant cloud of smoke and dirt. If smoke is an indication of wealth and material prosperity then assuredly Leeds had attained to affluence. But at what cost to its amenities and especially to the health of its people? The answer is to be found in the health statistics and particularly in the stunted growth and physical appearance of the children. The fogs of those early years of the century were things that had to be experienced to be believed for they were complete black-outs lasting sometimes for days and causing widespread misery, inconvenience and damage to life and property. By (a) tightening up the control of industrial smoke, (b) the more rigid application of the byelaws, (c) the closer scrutiny of plans and proposals for the installation of new boiler plant or the replacement or improvement of old, (d) the constant advocacy of the use of smokeless fuels including gas and electricity for domestic warming and cooking, and (e) by enlisting the co-operation of the Gas and Electricity Departments, employers of labour and the public generally in the campaign for smoke abolition, something has been achieved towards a smoke-free atmosphere. At any rate it can justifiably be claimed that (i) fogs are less frequent and when they do occur, less dense and less irritating, (ii) that respiratory diseases have

decreased, (iii) that rickets in children—a disease intimately associated with the lack of sunshine—have practically disappeared and (iv) that the stature and appearance of the children have improved. After all, perhaps the credit side of the account is not altogether void even if it is not as impressive as one would have wished.

The Committee and The Staff.—When I joined the staff of the Public Health Department the Committee, then called the Sanitary Committee, consisted of 12 members and had three Sub-Committees (Audit, Hospitals and Plans). The name was changed to Health Committee in November, 1918, and it now consists of 17 members and has five Sub-Committees, viz. Staffing and General Purposes, Hospitals, Tuberculosis, Maternity and Child Welfare, and Cattle, Food and Drugs.

In 1916 the staff of the Public Health Department consisted of the Medical Officer of Health, an assistant Medical Officer of Health who was also Chief Sanitary Inspector, an assistant Medical Officer of Health for Maternity and Child Welfare, a Clinical Tuberculosis Officer (part-time), a Chief Veterinary Officer, a Superintendent Health Visitor, 8 Health Visitors, a Superintendent Clinic Nurse, 8 Clinic Nurses, 4 Tuberculosis Nurses, 4 Divisional Sanitary Inspectors, a Housing Inspector, 9 Special Inspectors, 20 Sanitary Inspectors, a Chief Removal Officer and 15 Clerks, a total of 77. The staff in 1946 is shown in detail on page vi of this Report and in total amounts to 514 or nearly seven times as many as in 1916. To meet the needs of this rapidly growing staff, the accommodation at 12, Market Buildings has been extended on four occasions during the period and now occupies the whole of three floors with frontage to Vicar Lane, Kirkgate and Ludgate Hill. Even so the space is too small to accommodate all the staff and two sections, namely the Children's Nurseries (Administrative) and the City Analyst's have had to be housed outside the main building. The contrast in the size of the staff now and in 1916 may be taken as an indication of the growth, in scope and importance, of the service during the 31 years covered by the review.

The recent decision of the City Council to amalgamate the School Medical Service with the Public Health Service under the direction of the Medical Officer of Health is a matter for the profoundest

gratification. Thus has been brought to a successful issue a movement begun between the wars, and pursued with constancy, although with varying fortune, for over 20 years. This much-needed reform will be a great advantage inasmuch as it will do away with the anomaly of a divided Child Welfare Service.

Leeds University.—It is pleasant to reflect that during the period the relationships between the Public Health Department and the University have grown closer and more intimate. The foundation in 1921 of the Brotherton Chair in Bacteriology presented an opportunity for co-operative action in the realm of Public Health Bacteriology which was accepted by both bodies and resulted in the title of City Bacteriologist being conferred on the occupant of the Chair. The Medical Superintendent of Seacroft Hospital and at a later date the Chief Clinical Tuberculosis Officer and the Medical Superintendent of St. James's Hospital were appointed to lecture-ships in the University which further strengthened the bonds between 'Town and Gown'. For many years the Medical Officer of Health of the city has held the office of Professor of Public Health but since 1916 the scope of the Chair has considerably expanded and now includes the training of students for the Diploma in Public Health and of nurses who aspire to become Health Visitors. One of the latest and most important developments has been the recognition of St. James's Hospital as an integral part of the Teaching School for medical students, which, while giving a new status to the hospital has enhanced the teaching facilities of the University.

All these developments had their natural consummation in the setting up in 1936 of the Joint Hospitals Advisory Committee on which are represented the Voluntary Hospitals, the University and the Health Committee. The functions of this body are *inter alia* to consider and advise upon matters affecting all three bodies, including in particular the appointment of consultants to the various hospitals and teaching units.

Conclusion.—So ends the story. Despite the retarding influence of two major wars, substantial progress has been made, not perhaps as rapid or to the extent one would have wished, but in the right direction and of solid and permanent quality. On the foundations thus laid can proceed the future building that is to bring the Public Health Service of the city to its fullest development. I am glad to have had the privilege of taking part in so great a work, grateful

for all the help and encouragement I have received from the Health and Housing Committees, from the staff of the Public Health Department, from my colleagues in other Corporation Departments including in particular the School Medical Officer, and from the Press in carrying on the work and confident that great as the achievements of the past have been, they will be still greater in the years that lie ahead.

J. J. Martin

The table on page 19 gives details of the main vital and mortal statistics for the period under review.

VITAL AND MORTAL STATISTICS 1916 - 1946

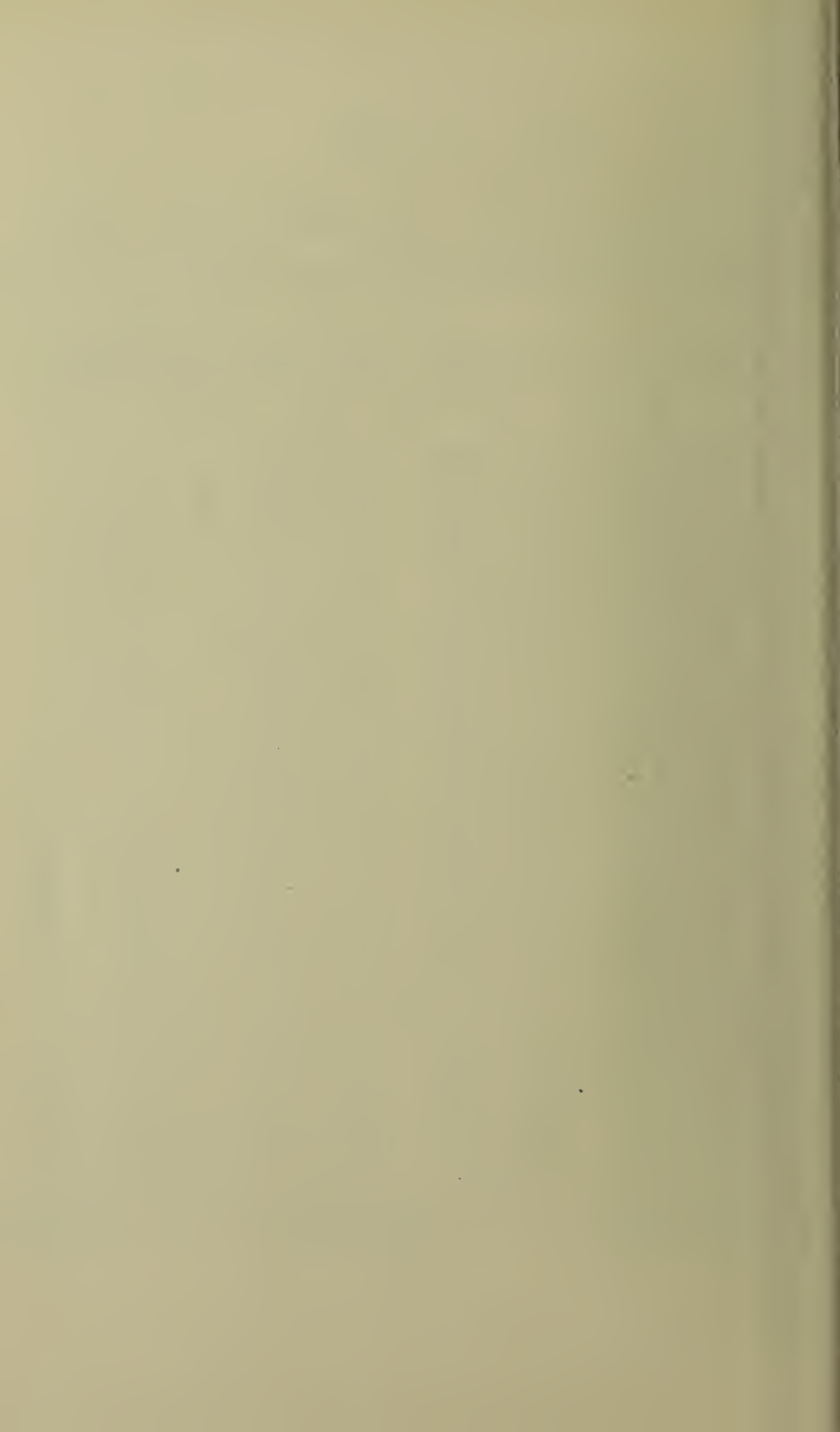
Year	Population	Births	Birth-Rate	Deaths	Death-Rate	INFANT MORTALITY			STILL-BIRTHS		MATERNAL MORTALITY				DIARRHŒA AND ENTERITIS		TUBERCULOSIS (All Forms)		CANCER		Deaths from Respiratory Diseases (inc. Influenza but excl. Pul. Tub.)	DIPHTHERIA			SCARLET FEVER		TYPHOID FEVER		MEASLES		WHOOPIING COUGH	
						Deaths — 1 year	Rate per 1,000 live births	Neo-Natal Mortality Rate	No.	Rate per 1,000 population	Deaths from Sepsis	Deaths from other causes	Total Deaths	Rate per 1,000 live births	Deaths under 2 years	Death-Rate per 1,000 births	Deaths	Death-Rate	Deaths	Death-Rate		Cases	Deaths	No. of persons immunised	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases	Deaths
1916	446,349	9,432	21.1	6,946	15.6	1,216	129	46.3	..	..	12	28	40	4.24	214	22.7	963	2.16	500	1.12	1,389	423	39	..	881	23	48	9	6,337	149	..	45
7	438,254	7,566	17.3	7,052	16.1	1,023	135	42.0	..	..	5	18	23	3.04	171	22.6	954	2.18	535	1.22	1,367	549	60	..	543	7	37	7	4,772	277	..	69
8	427,589	7,392	17.3	8,529	19.9	984	133	42.7	..	..	6	19	25	3.38	146	19.8	962	2.25	500	1.17	2,910	542	47	..	570	19	42	5	6,641	417	..	130
9	430,834	7,564	17.6	6,992	16.2	899	119	49.3	..	..	6	29	35	4.62	140	18.5	719	1.67	575	1.33	2,040	811	43	..	1,340	23	33	8	2,438	48	..	66
1920	448,913	11,229	25.0	6,591	14.7	1,232	110	46.3	..	..	29	28	57	5.07	140	12.5	698	1.56	492	1.10	1,513	885	64	..	1,363	17	29	4	5,459	148	..	100
1	465,500	10,144	21.8	6,285	13.5	997	98	41.3	..	..	8	30	38	3.75	184	18.1	641	1.37	554	1.19	1,360	665	38	..	1,526	14	24	2	209	5	..	72
2	466,700	9,253	19.8	6,479	13.9	935	101	43.3	..	..	14	18	32	3.46	92	9.9	653	1.40	595	1.27	1,357	470	28	..	2,722	33	14	7	9,932	152	..	115
3	469,900	8,684	18.5	5,986	12.7	773	89	41.8	..	..	10	35	45	5.18	118	13.6	637	1.36	574	1.22	1,179	368	20	..	2,134	31	9	1	4,683	50	..	32
4	471,600	8,558	18.1	6,747	14.3	921	108	38.7	..	..	9	24	33	3.86	103	12.0	657	1.40	639	1.35	1,777	289	27	..	1,256	20	25	6	6,654	46	..	87
5	472,900	8,180	17.3	6,037	12.8	748	91	37.8	..	..	24	21	45	5.50	149	18.2	599	1.27	606	1.28	1,262	422	39	..	1,166	15	9	3	5,100	39	..	47
6	473,400	8,065	17.0	6,062	12.8	748	93	38.7	..	..	14	27	41	5.08	147	18.2	585	1.24	657	1.39	1,099	374	26	..	756	5	9	1	7,076	19	..	119
7	477,600	7,790	16.3	6,198	13.0	629	81	35.2	..	..	14	24	38	4.88	88	11.3	558	1.17	649	1.36	1,070	439	28	..	773	6	14	2	8,569	117	..	44
8	474,800	7,665	16.1	6,133	12.9	606	79	37.3	..	..	14	22	36	4.70	105	13.7	542	1.14	698	1.47	976	634	21	94	3,515	18	6	1	3,638	21	..	36
9	478,500	7,426	15.5	7,898	16.5	722	97	42.3	†369	0.77	10	23	33	†4.23	86	11.6	621	1.30	684	1.43	2,037	536	26	107	3,473	29	14	3	9,486	102	..	107
1930	478,500	7,568	15.8	5,930	12.4	512	68	38.5	332	0.69	10	22	32	4.05	34	4.5	533	1.11	728	1.52	798	994	54	179	2,383	23	4	2	913	2	..	32
1	486,400	7,219	14.8	6,506	13.4	552	76	32.3	367	0.75	17	22	39	5.14	68	9.4	527	1.08	740	1.52	1,047	995	86	318	1,467	12	10	2	10,955	56	..	43
2	484,900	7,004	14.4	6,469	13.3	617	88	36.4	334	0.69	8	13	21	2.86	106	15.1	493	1.02	760	1.57	966	889	48	1,524	931	8	9	..	3,540	52	..	41
3	485,000	6,643	13.7	6,574	13.6	537	81	36.6	333	0.69	15	12	27	3.87	104	15.7	499	1.03	706	1.46	1,148	1,057	88	726	1,906	9	10	1	3,973	22	..	28
4	486,250	7,190	14.8	6,291	12.9	513	71	35.0	320	0.66	15	14	29	3.86	76	10.6	462	0.95	801	1.65	711	2,231	156	2,452	2,711	16	8	1	10,576	90	..	25
5	487,200	7,211	14.8	6,432	13.2	463	64	33.1	334	0.69	8	16	24	3.18	62	8.6	435	0.89	803	1.65	772	1,335	60	30,062	2,082	5	5	..	1,341	4	..	48
6	489,800	7,340	15.0	6,666	13.6	476	65	30.0	320	0.65	10	14	24	3.13	71	9.7	408	0.83	843	1.72	803	799	36	1,937	1,868	12	4	..	8,744	49	..	28
7	491,860	7,279	14.8	6,573	13.4	491	67	33.2	313	0.64	6	11	17	2.24	65	8.9	406	0.83	777	1.58	959	941	44	1,135	2,234	5	16	3	2,373	9	..	19
8	494,000	7,614	15.4	6,255	12.7	490	64	33.1	329	0.67	2	12	14	1.76	94	12.3	397	0.80	879	1.78	625	948	33	11,172	1,717	8	3	..	6,797	18	..	13
9*	(a) 497,000	7,079	14.2	6,535	13.4	401	57	30.2	307	0.62	6	13	19	2.60	54	7.7	413	0.85	847	1.74	662	427	20	894	960	2	12	1	1,673	2	||32	18
	(b) 488,000	7,079	14.2	6,535	13.4	401	57	30.2	307	0.62	6	13	19	2.60	54	7.7	413	0.85	847	1.74	662	427	20	894	960	2	12	1	1,673	2	||32	18
1940	465,700	6,946	14.9	6,918	14.9	395	57	30.8	282	0.61	2	13	15	2.09	44	6.4	467	1.00	778	1.67	990	301	11	1,167	643	..	35	1	4,364	8	128	2
1	471,930	6,667	14.1	6,456	13.7	407	61	26.7	259	0.55	7	9	16	2.32	40	6.0	408	0.86	849	1.80	740	576	22	13,208	887	3	12	1	7,006	21	2,105	25
2	462,400	7,204	15.6	6,090	13.2	369	51	29.7	278	0.60	6	13	19	2.54	32	4.4	357	0.77	888	1.92	589	707	25	15,101	1,576	1	8	..	7,810	10	1,554	32
3	453,900	7,547	16.6	6,358	14.0	356	47	23.7	250	0.55	4	15	19	2.44	40	5.3	378	0.83	906	2.00	808	334	11	19,415	1,998	3	2	..	2,426	14	1,284	14
4	451,100	8,518	18.9	6,124	13.6	429	50	28.4	262	0.58	..	12	12	1.37	76	8.9	316	0.70	915	2.03	608	254	9	7,483	1,913	3	5	1	678	..	1,213	6
5	451,670	7,760	17.2	6,410	14.2	438	56	28.6	248	0.55	4	10	14	1.75	88	11.3	318	0.70	969	2.15	740	149	2	7,510	1,190	..	3	1	9,480	21	590	10
6	481,570	9,886	20.5	6,614	13.7	401	41	23.8	299	0.62	4	8	12	1.18	53	5.4	288	0.60	960	1.99	719	132	6	9,822	964	..	4	..	895	1	1,635	13

* (a) for calculation of birth-rate.
(b) for calculation of death-rate.

†Registration of Still-births
in force 1929

‡1929 and onwards per 1,000
total births (live and still)

|| Whooping Cough made notifiable by Measles
and Whooping Cough Regulations, 1939.
(In force 23rd October, 1939).



SUMMARY, 1946.

LATITUDE 53°48' North. LONGITUDE 1°32' West.

AVERAGE HEIGHT ABOVE SEA LEVEL 250 feet.

AREA OF CITY 38,296·5 Acres.

CIVILIAN POPULATION (Registrar General's Estimate) 481,570

ESTIMATED NUMBER OF HOUSES 151,383

RATEABLE VALUE £3,949,120

SUM REPRESENTED BY A PENNY RATE £15,608

				Average	
				1946.	1936-45.
BIRTH RATE (births per 1,000 living)	..	..	..	20·53	15·63
MARRIAGE RATE (persons married per 1,000 living)	..	..	..	20·68	19·73
DEATH RATE (deaths per 1,000 living)	..	..	..	13·73	13·64
NATURAL INCREASE OF POPULATION (Excess of births over deaths in the year)	..	..	..	3,272	957
INFANT MORTALITY RATE (Deaths under 1 year per 1,000 births).	..	..	..	41	57
DEATH RATE from Pneumonia and Bronchitis	..	..	..	1·28	1·29
„ „ Cancer	..	..	..	1·99	1·83
„ „ Diarrhoea and Enteritis (under 2 years) per 1,000 births	..	..	..	5·36	8·17

	Cases	Case- rate	Deaths	Death rate
SCARLET FEVER	964	2·00	..	..
DIPHTHERIA	132	0·27	6	0·01
TYPHOID FEVER	4	0·01	1	0·00
MEASLES	895	1·86	1	0·00
WHOOPING COUGH	1,635	3·40	13	0·03
PULMONARY TUBERCULOSIS	519	1·08	261	0·54
OTHER FORMS OF TUBERCULOSIS	178	0·37	27	0·06

Natural and Social Conditions.

Area—38,296·5 acres.

Population.—The Registrar General's estimate of the civilian population of the city at the mid-year of 1946, was 481,570.

Dwelling-houses.—The total number of occupied dwelling-houses in the city at December, 1946, was 150,353.

Rateable Value.—The rateable value of the city in 1946 was £3,949,120 and the sum represented by a penny rate was £15,608. The corresponding figures for 1945 were £3,924,945 and £15,502.

VITAL AND MORTAL STATISTICS

Marriages.—The number of marriages which took place in the city during the year was 4,979, corresponding to a marriage rate of 20·7 as compared with 5,227 and a rate of 23·1 for the previous year, and an average of 4,380 and 19·1 for the previous five years.

The provisional marriage rate for England and Wales for 1946 was 17·9 as compared with 18·6 for the previous year.

Births.—The nett number of births credited to the city during the year was 9,886 as compared with 7,760 for the previous year, an increase of 2,126. The birth-rate was 20·5 per 1,000 of the civilian population, as compared with 17·2 for the previous year and an average of 16·5 for the previous five years. This is the highest birth-rate recorded since 1921, when the rate was 21·8.

The birth-rate for the city was lower than the rate of the 126 large towns which was 22·2 per thousand of the civilian population, but higher than that of England and Wales taken as a whole, which was 19·1 per thousand of the total population.

Excess of Births over Deaths.—The excess of births over deaths or what is generally spoken of as the "natural increase of the population" was 3,272 as compared with 1,350 in 1945 and an average of 957 for the previous ten years. This is the largest natural increment recorded since 1921, when the figure was 3,859.

Illegitimate Births.—Of the 9,886 (nett) births registered, 9,122 or 92·3 per cent. were legitimate and 764 or 7·7 per cent. were illegitimate. The comparative figures for the previous year were 6,919 or 89·2 per cent. legitimate and 841 or 10·8 per cent. illegitimate.

ILLEGITIMATE BIRTHS.

Year.	Illegitimate births.	Percentage of nett births registered.	Rate per 1,000 estimated population.
1914 ..	564	5.3%	1.23
1915 ..	543	5.5%	1.18
1916 ..	553	5.9%	1.24
1917 ..	576	7.6%	1.31
1918 ..	528	7.1%	1.23
1919 ..	567	7.5%	1.32
1920 ..	631	5.6%	1.41
1921 ..	565	5.6%	1.21
1922 ..	511	5.5%	1.09
1923 ..	438	5.0%	0.93
1924 ..	423	4.9%	0.90
1925 ..	422	5.2%	0.89
1926 ..	434	5.4%	0.92
1927 ..	371	4.8%	0.78
1928 ..	390	5.1%	0.82
1929 ..	410	5.5%	0.86
1930 ..	374	4.9%	0.78
1931 ..	358	5.0%	0.74
1932 ..	370	5.3%	0.76
1933 ..	335	5.0%	0.69
1934 ..	381	5.3%	0.78
1935 ..	360	5.0%	0.74
1936 ..	385	5.2%	0.79
1937 ..	400	5.5%	0.81
1938 ..	429	5.6%	0.87
1939 ..	387	5.5%	0.78
1940 ..	402	5.8%	0.86
1941 ..	443	6.6%	0.94
1942 ..	460	6.4%	0.99
1943 ..	583	7.7%	1.28
1944 ..	683	8.0%	1.51
1945 ..	841	10.8%	1.86
1946 ..	764	7.7%	1.54

Stillbirths.—The nett number of stillbirths for the year was 299 or 2.9 per cent. of the total births registered. The corresponding figures for the previous year were 248 and 3.1 per cent. Calculated per thousand of the population the rate for stillbirths was 0.62 as compared with 0.55 for the previous year. The rate for England and Wales was 0.53. Of the 299 (nett) stillbirths 270 or 90.3 per cent. were legitimate and 29 or 9.7 per cent. were illegitimate.

Year.	No. of stillbirths registered.*	Per cent. of total births.	Rate per 1,000 population.
1936 ..	320 (21)	4·2	0·65
1937 ..	313 (17)	4·1	0·64
1938 ..	329 (19)	4·1	0·67
1939 ..	307 (19)	4·2	0·62
1940 ..	282 (27)	3·9	0·61
1941 ..	259 (29)	3·9	0·55
1942 ..	278 (32)	3·7	0·60
1943 ..	250 (22)	3·2	0·55
1944 ..	262 (23)	3·0	0·58
1945 ..	248 (38)	3·1	0·55
1946 ..	299 (29)	2·9	0·62

* Illegitimate Stillbirths in brackets.

Deaths.—The nett number of civilian deaths was 6,614 as compared with 6,410 for the previous year, an increase of 204. The corresponding death-rate was 13·7 as compared with 14·2 for the previous year and an average of 13·7 for the previous five years.

The death-rate for England and Wales was 11·5 and that of the 126 great towns, 12·7.

Causes of Death.—The principal causes of death were, in order of numerical importance, organic heart disease, cancer, cerebral hæmorrhage, arterio sclerosis, pneumonia and bronchitis, which together accounted for 4,238 deaths or 64·1 per cent. of the total deaths. Last year (1945) this group of diseases was responsible for 4,070 or 63·5 per cent. of the total deaths.

Deaths in Age Groups.—The table on page 27 sets out the deaths according to age groups. The aggregate number of deaths of children in the age groups 0-1, 1-2 and 2-5 was 460 or 7·0 per cent. of the total deaths, as compared with 508 or 7·9 per cent. for the previous year, and an average of 498 or 7·9 per cent. for the previous five years. The number of deaths in all the age groups under 45 years was 1,066 or 16·1 per cent. as compared with 1,160 or 18·1 per cent. in the previous year. In the remaining age groups 45-65 and 65+ the deaths numbered 5,548 or 83·9 per cent. as compared with 5,250 and 81·9 per cent. for the previous year.

Infant Mortality Rate.—The number of deaths of children under one year was 401 or 6·1 per cent. of the total deaths. The infant mortality rate corresponding was 41, or 15 less than in the previous year (56) and 12 less than the average for the previous five years (53). This is the lowest infant mortality rate ever recorded in the statistical history of the city.

This subject is dealt with in greater detail on page 95.

Cremations.—Out of a total of 6,614 Leeds deaths during the year 1946 the number of bodies disposed of by cremation was 1,020 or 15·4 per cent. as compared with 735 and 11·5 per cent. for the previous year. Of this number 904 were cremated at Lawnswood and the remainder 116, at Cottingley Hall. The total number of cremations represents an increase of 285 on the figure for the previous year, and an increase of 532 on the average number of cremations for the previous five years.

PRINCIPAL CAUSES OF DEATH.

Death rate.	Diseases.	No. of deaths in 1946 (nett).	+ Increase or - decrease compared with 1945.
0.00	Enteric Fever	1	-- +
..	Small-pox .. .. .	..	..
0.00	Measles	1	- 20
..	Scarlet Fever .. .. .	..	- +
0.03	Whooping Cough	13	+ 3
0.01	Diphtheria	6	+ 4
0.10	Influenza	49	+ 27
..	Erysipelas .. .. .	..	- 1
0.54	Pulmonary Tuberculosis	261	- 25
0.06	Other Tuberculous Diseases	27	- 5
1.99	Cancer, malignant disease	960	- 9
0.03	Rheumatic Fever	14	- 3
0.02	Meningitis	9	- 3
1.53	Cerebral Hæmorrhage	738	+ 42
3.16	Organic Heart Disease	1,524	- 65
0.83	Arterio-sclerosis	400	+206
0.62	Bronchitis	298	+ 14
0.66	Pneumonia (all forms)	318	- 20
0.11	Other diseases of respiratory organs	54	- 42
0.16	Diarrhœa and Enteritis	78	- 37
0.05	Appendicitis and Typhlitis	24	- 4
0.03	Cirrhosis of Liver	13	+ 7
0.30	Nephritis and Bright's Disease	145	- 29
0.01	Puerperal Fever	4	- +
0.02	Other accidents and diseases of Pregnancy and Parturition	9	- 1
0.32	Congenital Dehility and Malformation, including Premature Birth	155	+ 12
0.37	Violent Deaths, excluding Suicide	178	- 23
0.12	Suicide	60	+ 15
2.64	Other Defined Diseases	1,271	+158
0.01	Diseases ill-defined or unknown	4	+ 3
13.72	Totals	6,614	+204

CAUSES OF, AND AGES AT DEATH DURING THE CALENDAR YEAR, 1946.

CAUSES OF DEATH.	Nett Deaths at the subjoined ages of "Residents" whether occurring within or without the District.									Total Deaths whether of "Residents" or "Non-Residents" in Institutions in the District
	ALL AGES.	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.	
1. Interic Fever	1	..	..	..	..	..	1	..	..	..
2. Small-pox .. ..	..	..	..	..	..	..	..	..	..	..
3. Measles	1	..	1	..	..	..	..	..	..	..
4. Scarlet Fever .. ..	..	..	..	..	..	..	..	..	..	..
5. Whooping Cough	13	9	3	1	..	..	..	..	..	9
6. Diphtheria	6	1	1	..	2	..	1	1	..	6
7. Influenza	49	2	1	..	2	1	..	14	29	4
8. Erysipelas .. ..	..	..	..	..	..	..	..	..	..	..
9. Pulmonary Tuberculosis ..	261	1	..	1	2	36	100	100	21	78
10. Other Tuberculous Diseases	27	2	3	5	4	5	5	2	1	32
11. Cancer, malignant disease	960	..	..	..	..	2	72	398	488	493
12. Rheumatic Fever	14	..	..	..	2	2	3	5	2	9
13. Meningitis	9	4	1	..	..	1	2	1	..	12
14. Cerebral Hæmorrhage, &c...	738	1	..	..	..	1	17	181	538	221
15. Organic Heart Disease ..	1,524	..	..	..	3	5	55	288	1,173	355
16. Arterio-sclerosis	400	..	..	..	..	..	..	21	379	349
17. Bronchitis	298	6	1	2	2	..	10	98	179	67
18. Pneumonia (all forms) ..	318	76	9	3	2	5	19	75	129	198
19. Other diseases of respiratory organs	54	3	1	1	2	3	6	13	25	30
20. Diarrhoea and Enteritis ..	78	52	1	2	..	2	3	4	14	51
21. Appendicitis and Typhlitis	24	..	..	..	3	1	1	10	9	30
22. Cirrhosis of Liver	13	..	..	..	..	..	2	6	5	10
23. Nephritis and Bright's Disease	145	..	..	..	1	5	18	43	78	80
24. Puerperal Fever	4	..	..	..	..	..	4	..	..	3
25. Other accidents and diseases of Pregnancy and Parturition	9	..	..	..	..	1	8	..	..	17
26. Congenital Debility and Malformation, including Premature Birth ..	155	147	1	3	1	..	2	1	..	150
27. Violent Deaths, excluding Suicide	178	24	2	7	9	12	12	37	75	155
28. Suicide	60	..	..	..	..	2	16	27	15	11
29. Other Defined Diseases ..	1,271	72	4	5	14	15	101	450	610	690
30. Diseases ill-defined or unknown	4	1	..	..	..	..	..	..	3	2
Totals	6,614	401	29	30	49	99	458	1,775	3,773	3,062

DEATHS IN AGE GROUPS (NETT), 1935-1946.

Together with the percentage of the total deaths, represented by each group
(in italics).

Year.	Under 1	1-2	2-5	5-15	15-25	25-45	45-65	65+	Total.
1936	476 <i>7.1%</i>	84 <i>1.3%</i>	90 <i>1.4%</i>	109 <i>1.6%</i>	187 <i>2.8%</i>	628 <i>9.4%</i>	1,991 <i>29.9%</i>	3,101 <i>46.5%</i>	6,666
1937	491 <i>7.5%</i>	72 <i>1.1%</i>	73 <i>1.1%</i>	102 <i>1.5%</i>	190 <i>2.9%</i>	622 <i>9.5%</i>	1,926 <i>29.3%</i>	3,097 <i>47.1%</i>	6,573
1938	490 <i>7.8%</i>	64 <i>1.0%</i>	81 <i>1.3%</i>	100 <i>1.6%</i>	171 <i>2.7%</i>	584 <i>9.4%</i>	1,802 <i>28.8%</i>	2,963 <i>47.4%</i>	6,255
1939	401 <i>6.1%</i>	54 <i>0.8%</i>	61 <i>0.9%</i>	74 <i>1.1%</i>	155 <i>2.4%</i>	580 <i>8.9%</i>	1,860 <i>28.5%</i>	3,350 <i>51.3%</i>	6,535
1940	395 <i>5.7%</i>	62 <i>0.9%</i>	60 <i>0.9%</i>	73 <i>1.1%</i>	168 <i>2.4%</i>	646 <i>9.3%</i>	2,000 <i>28.9%</i>	3,514 <i>50.8%</i>	6,918
1941	407 <i>6.3%</i>	62 <i>1.0%</i>	79 <i>1.2%</i>	92 <i>1.4%</i>	151 <i>2.3%</i>	599 <i>9.3%</i>	1,834 <i>28.4%</i>	3,232 <i>50.1%</i>	6,456
1942	369 <i>6.1%</i>	45 <i>0.7%</i>	59 <i>1.0%</i>	86 <i>1.4%</i>	118 <i>1.9%</i>	531 <i>8.7%</i>	1,703 <i>28.0%</i>	3,179 <i>52.2%</i>	6,090
1943	356 <i>5.6%</i>	42 <i>0.7%</i>	63 <i>1.0%</i>	96 <i>1.5%</i>	144 <i>2.3%</i>	563 <i>8.8%</i>	1,657 <i>26.1%</i>	3,437 <i>54.0%</i>	6,358
1944	429 <i>7.0%</i>	34 <i>0.6%</i>	37 <i>0.6%</i>	86 <i>1.4%</i>	114 <i>1.9%</i>	500 <i>8.2%</i>	1,663 <i>27.1%</i>	3,261 <i>53.2%</i>	6,124
1945	438 <i>6.8%</i>	33 <i>0.5%</i>	37 <i>0.6%</i>	67 <i>1.1%</i>	104 <i>1.6%</i>	481 <i>7.5%</i>	1,752 <i>27.3%</i>	3,498 <i>54.6%</i>	6,410
1946	401 <i>6.1%</i>	29 <i>0.4%</i>	30 <i>0.5%</i>	49 <i>0.7%</i>	99 <i>1.5%</i>	458 <i>6.9%</i>	1,775 <i>26.8%</i>	3,773 <i>57.0%</i>	6,614

Infectious and Other Diseases

BY

J. F. WARIN, M.D., Ch.B., D.P.H.,

Deputy Medical Officer of Health.

The year 1946 was generally satisfactory and there were no major outbreaks of infection.

There was a further reduction in the incidence of diphtheria to the record low level of 132 cases. There were six deaths, all occurring in children who had not been immunised.

There was a slight reduction in the incidence of scarlet fever and for the second year in succession there were no deaths from this disease.

It was not an " epidemic year " for measles and only one death occurred, but whooping cough on the other hand became epidemic in the last few months of the year and caused 13 deaths.

Among the intestinal diseases, dysentery showed an increase due to small outbreaks of the Sonne type which occurred early in the year in a number of Day Nurseries and in the mental ward of an Institution. On the other hand deaths from diarrhoea and enteritis in children under the age of two showed a substantial decrease compared with the previous year.

The outbreak of gastro-enteritis which commenced in the maternity block of St. James's Hospital in November, 1944, continued throughout 1945 and finally subsided at the end of October, 1946. Initially the heaviest incidence was amongst the new-born babies and there was a high fatality rate particularly in premature infants. This was followed by a period of several months in which cases occurred principally amongst the mothers, and those babies who were involved had mild attacks and all recovered. During 1946 the total number of cases was less than the previous year and mothers and babies were about equally affected. The infection in infants was, however, more severe and a number of fatalities occurred, particularly in the first few months of the year and again in October. During the two years the epidemic lasted, 215 mothers were involved with no deaths, whilst 155 babies were affected with

39 deaths, that is a case mortality rate amongst the infants of 25 per cent. All bacteriological examinations were negative and the available evidence suggests an airborne virus infection as the most likely cause. Various measures of control were unsuccessfully tried, including sulphonamide therapy and closure of a ward. Prophylactic Mepacrine treatment was started in November and this coincided with the termination of the epidemic but further experience is necessary before giving Mepacrine credit for this happy ending.

Scabies has continued to decrease but is still prevalent, and there was a welcome decrease in the number of cases of head louse infestation which may be attributable to the new insecticide D.D.T. which is now in full use and is proving a most effective method of dealing with this problem.

On the 12th August, 1946, Seacroft Hospital again became a fever hospital, having been released from its wartime activities as an Emergency Medical Service Hospital, and Killingbeck Hospital, which had been used during the war years for infectious disease cases, reverted to the treatment of tuberculosis.

Smallpox.—No case of this disease occurred in the city during the year. Three hundred and eighty-five contacts from abroad were kept under surveillance during the quarantine period. In addition, sixteen persons who arrived in the city from areas where smallpox was prevalent were kept under observation. None of them developed the disease. The day-to-day follow-up of these contacts imposed at times a heavy and exacting burden on the Inspectorial staff of the Department.

Three doubtful cases, contacts from abroad, were referred to the Department for a second opinion. These were visited and one proved to be lumbago, another pneumonia and the third neurosis. Two of these cases were removed to hospital as a precautionary measure when the precise diagnosis was still in doubt.

Vaccination.—During 1945, the last year for which statistics are available, 4,644 children or 56·2 per cent. of the total births, were successfully vaccinated. Comparative figures for the five preceding years were 4,716 (54·8 per cent.), 4,303 (56·1 per cent.), 4,000 (54·4 per cent.), 3,555 (50·6 per cent.), 3,367 (45·1 per cent.).

Typhus.—No case of this disease occurred in the city during the year.

Twenty-three persons who arrived in the city from areas abroad where typhus is prevalent were kept under observation. None of them developed the disease.

Diphtheria.—Accepted cases during the year numbered 132, of which 128 (97·0 per cent.) were treated in hospital, compared with 149 (all treated in hospital) a year ago. The corresponding case-rate 0·27 was the lowest on record.

There were 6 deaths representing a case mortality rate of 4·5 per cent. as compared with 2 deaths (1·3 per cent.) last year. All the deaths occurred in unimmunised persons.

There is no doubt whatsoever that the diminishing incidence and the relatively few deaths are due to the success of the immunisation campaign and with a further intensification of the latter it is hoped that in a very short time this once dreaded disease will become a rarity and may, perhaps, before long even disappear entirely. For this to happen, however, a very high level of immunisation must be maintained in the community.

Year.	Cases Notified.	Case-rate.	Deaths.	Death-rate.
1928	634	1·34	21	0·08
1929	536	1·12	26	0·09
1930	994	2·08	54	0·09
1931	995	2·05	86	0·07
1932	889	1·83	48	0·06
1933	1,057	2·18	88	0·07
1934	2,231	4·59	156	0·10
1935	1,335	2·74	60	0·09
1936	799	1·63	36	0·08
1937	941	1·91	44	0·07
1938	948	1·92	33	0·07
1939	427	0·88	20	0·05
1940	301	0·65	11	0·06
1941	576	1·22	22	0·07
1942	707	1·53	25	0·05
1943	334	0·74	11	0·03
1944	254	0·56	9	0·02
1945	149	0·33	2	0·00
1946	132	0·27	6	0·01

DIPHTHERIA IMMUNISATION.

Illustrating the progress of the Immunisation Scheme since its inception.
Number of Persons in Age Groups, having had Full Course of Injections.

Age at date of Inoculation	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943	1944	1945	1946	Total.
Under 1 year ..	15	35	30	34	79	25	56	383	102	68	210	38	75	24	..	..	..	..	..	Total
1-2 years ..	33	33	31	45	156	28	163	820	200	245	820	215	411	941	3,980	3,990	4,412	5,110	5,137	under 5 years
2-3 „ ..	17	15	7	30	169	45	171	937	114	177	788	116	173	814	2,262	1,024	469	240	777	at end of 1946
3-4 „ ..	13	9	13	37	161	66	184	1,188	117	92	1,008	96	121	943	2,053	1,063	463	220	557	21,375
4-5 „ ..	11	10	6	28	152	75	204	1,638	114	79	1,241	64	62	865	1,940	1,043	381	257	463	
5-6 „ ..	2	2	5	25	209	148	202	2,337	163	72	1,752	46	30	1,563	1,486	1,667	451	359	556	Total
6-7 „ ..	2	1	5	17	248	183	236	2,522	86	53	1,818	12	10	1,450	940	1,622	302	233	467	5-10 years
7-8 „ ..	..	..	7	26	106	58	184	2,546	54	27	1,239	7	6	1,174	676	1,482	197	185	392	28,939
8-9 „ ..	..	..	11	22	54	18	166	2,606	30	7	571	13	6	979	466	1,357	164	188	275	
9-10 „ ..	..	..	11	11	45	18	172	2,647	27	9	396	6	3	926	325	1,271	157	142	259	
10-11 „ ..	..	..	15	9	53	16	132	2,955	28	14	317	19	4	892	252	1,197	130	152	250	Total
11-12 „ ..	..	..	5	10	30	8	160	2,846	30	7	287	17	4	921	205	1,089	109	128	249	10-15 years
12-13 „ ..	..	..	4	6	27	10	122	2,930	30	7	212	19	5	889	193	1,193	96	109	185	29,377
13-14 „ ..	..	..	8	4	10	8	89	2,673	54	5	154	32	7	704	175	1,035	78	79	138	
14-15 „ ..	..	..	7	4	1	4	53	475	83	1	17	20	..	74	148	382	8	29	34	
15 years and over	..	..	8	7	7	2	107	408	696	144	25	174	37	65	..	..	55	79	83	Total
Age not known	1	2	6	3	17	14	51	151	9	129	317	..	213	34	..	..	11	..	..	15 years & over
TOTALS ..	94	107	179	318	1,524	726	2,452	30,062	1,937	1,135	11,172	894	1,167	13,208	15,101	19,415	7,483	7,510	9,822	43,687
																				Age not known
																				958
																				124,306

Diphtheria Immunisation.—During the year 9,739 children under 15 years of age were immunised against diphtheria compared with 7,431 last year. Of this total, 9,218 immunisations were performed by medical officers of this Department and the remaining 521 by private medical practitioners to whom material was supplied, free of charge, by the Department.

In addition, 13,311 “ refresher ” doses of immunising material were given to children under 15 years of age as compared with 7,387 last year.

On 31st December, 1946, it was estimated that 58·4 per cent. of children under five years of age, 74·0 per cent. between the ages of one and five and 88·7 per cent. between the ages of five and fifteen years in the city had been immunised against diphtheria. It is calculated that of children of all ages up to fifteen years 77·9 per cent. have been immunised.

During the summer months an intensive campaign was organised in conjunction with the Ministry of Health. This was responsible for a substantial increase in the number of children who were immunised or given a “ refresher ” dose during the year. A mobile clinic was re-introduced for the benefit of those living in outlying districts or where, for one reason or another, parents are unable to take their children to the regular clinics. This was highly successful and had a big share in the success of the campaign. About 1,000 children were immunised by this service, and it is believed that few of these children would have received protection against diphtheria had there been no mobile clinic to bring it to them.

The table on page 31 illustrates the progress of the immunisation scheme since its inception.

Diphtheria in the Inoculated.—Of the 124,306 persons immunised since 1928, thirty-four developed clinical diphtheria of a mild type during the year. All recovered.

Scarlet Fever.—A decrease in the number of accepted cases of this disease occurred during the year ; 964 of which 752 (78·0 per cent.) were removed to hospital. The corresponding figures for last year were 1,190 and 993 (83·4 per cent.). The case-rate was 2·00 compared with 2·63 for the previous year. There were again no deaths. Providing that circumstances permit, uncomplicated cases of the present mild type of scarlet fever are better nursed at home.

With the co-operation of medical practitioners it was found possible towards the end of the year to limit the admissions to hospital to about half the notified cases. This policy was advocated solely with regard to the welfare of the patient, but incidentally valuable hospital beds were thereby saved.

Return Cases.—Of the 815 cases discharged from hospital during the year, 14 gave rise to return cases, a rate of 1·7 per cent.

Enteric Group.—Accepted cases during the year numbered four, of which two were due to infection with *B. Typhosus* and two to *B. Paratyphosus* (B). One case was removed to Seacroft Hospital. Careful enquiries failed to trace the source of infection, but in one case, the patient, a little girl aged eight years had recently returned from a visit to relations in another town where there had been a few cases of paratyphoid and it is possible she may have contracted the infection there.

There was one death representing a case mortality rate of 25·0 per cent. Five chronic carriers were kept under observation during the year.

Measles.—There were 895 accepted cases of this disease during the year, of which 10 (1·1 per cent.) were removed to hospital. Only one death occurred, representing a case mortality rate of 0·11 per cent. The corresponding figures for last year—which was an “epidemic” year for measles—were 9,480 cases and 21 deaths, a case mortality rate of 0·22 per cent. In anticipation of a further epidemic early in 1947 a scheme for making “measles serum” available for prevention or attenuation was put into operation at the end of the year. This will form a subject for full report next year.

Whooping Cough.—An increase in the number of accepted cases of this disease occurred during the year; 1,635 of which 61 (3·73 per cent.) were removed to hospital, as compared with 590 and 25 (4·2 per cent.) last year, which was an exceptionally good year for whooping cough, the number of cases being the lowest since the year 1940.

There were 13 deaths, representing a case mortality rate of 0·8 per cent., compared with 10 (1·7 per cent.) a year ago,

Many enquiries continue to be received as to the value of immunisation against whooping cough but no reliable and effective vaccine has so far been produced. The Medical Research Council are organising a series of "field trials" in order to investigate new vaccines now being manufactured and one of these trials will be held in Leeds commencing May, 1947.

Puerperal Pyrexia.—A slight increase in the number of accepted cases of this disease occurred during the year; 79 as compared with 70 a year ago, and 77 in 1944. Of these 59 (74·7 per cent.) occurred in institutions, 2 (2·5 per cent.) in the practices of general practitioners, and 18 (22·8 per cent.) in midwives' practices. Of the total 35 (44·3 per cent.) were treated in Killingbeck or Seacroft Hospitals.

There were 4 deaths giving a case mortality rate of 5·06 per cent. and a mortality rate per thousand total births of 0·40.

Ophthalmia Neonatorum.—A slight increase in the number of accepted cases of this disease occurred during the year; 24 as compared with 21 a year ago. Of these 7 (29·1 per cent.) were removed to Killingbeck or Seacroft Hospitals. The results of treatment were as follows:—

Recovery apparently perfect	..	..	24
Sight of both eyes affected	..	..	—
Still under treatment	..	..	—
Died from other diseases	..	..	—
Results not known	..	..	—

Erysipelas.—Once again a decrease in the number of accepted cases of this disease has to be recorded; 133 as compared with 151 a year ago, and 167 in 1944. Of these 41 (30·8 per cent.) were removed to hospital. There were no deaths. During recent years there has been a marked reduction in the incidence of this disease and those cases that occur respond so successfully to sulphonamide therapy that erysipelas has largely ceased to be a disease with any serious significance.

Malaria.—There were seven cases of this disease reported during the year, as compared with one last year. In all cases infection was contracted abroad. One case was removed to Killingbeck Hospital.

Dysentery.—There was an increase in the number of accepted cases of this disease during the year; 67 as compared with 38 last

year, of which 11 occurred at home, 18 in institutions in the city and 38 in day nurseries. The number treated in Killingbeck or Seacroft Hospitals was 15 or 22.4 per cent. of the total. Of the 67 cases, 11 were Flexner and 56 Sonne in type. There was one death with a case mortality rate of 1.5 per cent. The mortality rate per 1,000 population was 0.002.

An outbreak of Sonne dysentery affecting several Day Nurseries in the city occurred during the months of January, February and March. Thirty children and 8 staff were found to be suffering from the disease, the diagnosis being confirmed bacteriologically in 26 cases. Four children were removed to hospital and all cases recovered. Precautionary measures taken included the temporary closure of the Nursery chiefly affected, the exclusion from other Nurseries of any child or adult with the least sign of diarrhoea, and the insistence on a negative faeces specimen before re-admittance of such cases.

During the months of January and February, 11 cases of Sonne dysentery (bacteriologically confirmed) were reported among the patients in the mental wards of an institution in the city. All recovered.

Acute Anterior Poliomyelitis.—There were only two accepted cases of this disease during the year and no deaths.

Encephalitis Lethargica.—There was only one accepted case of this disease during the year. One death was recorded in a person who had not previously been notified as suffering from the disease.

Cerebro-Spinal Meningitis.—The number of accepted cases of this disease was 13, of which 4 (30.8 per cent.) were removed to Killingbeck or Seacroft Hospitals, as compared with 11 and 7 (63.6 per cent.) last year. There were 7 deaths giving a case mortality rate of 53.8 per cent. as compared with 6 and 54.5 per cent. in 1945.

Anthrax.—There was one death from this disease during the year. The deceased was employed as a skin sorter at a large tannery in the city. Investigations were made at the tannery by Officers of this Department and H.M. Inspector of Factories, but no evidence was forthcoming as to how the infection was contracted. Samples of skins from the same bales as were being sorted by the deceased were examined bacteriologically with negative results. As a follow-up measure, samples of dust were taken from the floors of the storage rooms for examination for the presence of anthrax but these proved negative.

Influenza.—There was an increase in the number of deaths from influenza, 49 as compared with 22 last year. The comparative death-rates were 0·10 and 0·05 respectively.

Pneumonia.—Accepted cases during the year numbered 367, of which 320 (87·2 per cent.) were primary and 47 (12·8 per cent.) influenzal. The corresponding figures for last year were 434 of which 406 (93·5 per cent.) were primary and 28 (6·5 cent.) influenzal. There were 318 deaths from all forms of pneumonia as compared with 338 a year ago. The comparative mortality rates were 0·66 and 0·75 respectively.

Bronchitis.—There was again an increase in the number of deaths from this disease, 298 as compared with 284 last year. The comparative death rates were 0·62 and 0·63 respectively.

Diarrhoea and Enteritis.—It is gratifying to be able to record a substantial decrease in the number of deaths from this disease in children under two years of age, 53 compared with 88 last year. The comparative death-rates per 1,000 births were 5·36 and 11·3 respectively.

Cancer.—There were 960 deaths from this disease as compared with 969 last year and 915 in 1944. The corresponding death-rates per thousand of the population were 1·99, 2·15 and 2·03 respectively.

Food Poisoning.—Outbreaks of food poisoning continue to occupy the attention of Officers of this Department. Seven true cases came to our knowledge during the year. All the patients gave fæces which were positive for organisms of the *Salmonella* group.

In two cases, both in the same household, the patients had drunk raw egg and milk, to which they were very partial, otherwise they had the same dietary as the other members of the family who were not affected. Suspicion rested on the milk, and from enquiries made to the retailer concerned it was ascertained that he obtained his milk from various sources. Four samples, one from each source of supply, were taken at his dairy for bacteriological examination, and in one of them a probable member of the *Salmonella* group was isolated but it did not agglutinate with any available specific serum. As the result was rather doubtful the strain was sent away.

for further identification. The organism proved to be non-pathogenic and therefore not a true *Salmonella*. A repeat sample was taken and this proved to be negative. There were no cases of illness in the retailer's household, and no other cases were reported among his customers. Careful enquiries were made in the other five cases (in separate households) but again no definite evidence was forthcoming as to the source of infection.

Three of the seven cases were removed to hospital. All recovered.

Twenty-seven cases of suspected food poisoning were also reported to the Department during the year. Information was received from the Police on the morning of September 27th regarding three persons, all in the same household, who had been taken seriously ill overnight with suspected food poisoning. The onset of illness occurred about 9.30 p.m. on the 26th September after they had eaten pork pie for tea at about 6.30 p.m. All three were removed to hospital. Other persons in the same house who did not eat any of the pie were not affected. The remains of the pie were submitted for examination for food poisoning organisms.

The shop from which it was purchased was immediately visited by Officers of this Department and a detailed investigation made of the premises, staff, equipment and methods of manufacture. The premises were found to be very satisfactory and there had been no recent illness amongst the members of the staff. It was ascertained that about 150 pies had been made on the 24th September and sold the next day—the day when the suspected pie was purchased—and another 150 were made on the 25th September and sold on the 26th so that about 300 pies had been sold and yet only one as far as was known caused any serious illness. Samples of the ingredients used in the making of the pies were taken for bacteriological and chemical examination. All proved negative, including the remains of the suspected pie. Fæces specimens were obtained from all three patients but no pathogenic organisms were isolated. Blood tests were later taken from two of the patients and these also were negative. After careful consideration there is little doubt that the pie caused their acute illness, and the short incubation period suggests a toxin elaborated by an organism which probably perished in the heat treatment of the pie.

All three patients recovered and no other cases were reported.

Enquiries were made in the remaining twenty-four suspected cases, but all investigations were negative and the cause of the illnesses remained untraced. All recovered.

In addition to the above, two large-scale outbreaks of suspected food poisoning occurred as follows :—

1.—On the 14th May, information was received by the Education Authorities of an outbreak of suspected food poisoning affecting fourteen schools in the city. Enquiries into the outbreak were immediately started by the Acting School Medical Officer, and the help of this Department was requested two days later.

All the schools affected were supplied with meals from the same kitchen. In all 262 children were sufficiently ill to remain at home, but many more were affected though not so seriously as to necessitate absence from school. The symptoms were acute diarrhoea with vomiting in the early stages, and they lasted for varying periods from 5 up to 24 hours. The majority of the cases were mild and none required hospital treatment. The time of onset of the symptoms implicated a meal served from the kitchen on the 13th May, which consisted of cold meat, boiled potatoes, salad, gravy and semolina pudding. After careful investigations at the kitchen where the food was prepared the salad was considered to be the most probable source of infection. This consisted of beetroot, raw shredded cabbage and peas, with suspicion resting on the peas which were cooked three days before consumption and stored in a larder at ordinary room temperature. One of these days was hot and sunny and the uninsulated larder roof was exposed to the direct rays of the sun. The temperature of the larder may easily have risen to a level at which any bacterial contamination could have multiplied rapidly and cooked dried peas would form a suitable culture medium for bacterial growth. None of the food prepared for the meal in question was available for examination, and by the time the services of this Department were sought the large majority of the children had recovered and no material was available for bacteriological examination. However, specimens of faeces were obtained from eight children who had not returned to school and also from one affected kitchen worker, but all proved negative.

The kitchen premises and equipment were satisfactorily clean, very few flies were observed, and no serious faults detected.

The whole outbreak was characteristic of a mild irritant type of food poisoning, possibly bacterial, but no conclusive evidence could be established as to the type of organism or the vehicle of infection, though it is considered highly probable that the peas were responsible.

2.—On the morning of December 6th, information was received from a member of the staff of a large store in the city regarding an outbreak of suspected food poisoning among a considerable number of the firms' employees following a meal taken in their canteen on the previous day.

The premises were immediately visited by Officers of this Department and investigations made into the outbreak. It was ascertained that about 200 employees had reported sick on arriving at work that morning, but it was later learned that almost the whole of the staff, 800 in all, had been affected in some way or another though many of them very mildly.

Twenty-eight employees were absent from work on the morning of the investigation. The symptoms commenced 10-12 hours after taking the mid-day meal in the staff canteen on the previous day (December 5th) and consisted of abdominal pain followed by acute diarrhoea. The illness was of short duration and none was seriously ill or required hospital treatment.

The meal consisted of "hot-pot" made up of tinned stewed steak, sliced potatoes, onions, cabbage and gravy, followed by trifle made from sponge cake, jam and synthetic cream.

In view of the large number of victims it seemed reasonable to suspect a fluid substance such as gravy as the most likely cause. From enquiries it was found that owing to a breakdown in the refrigerator some cooked meat left over from the previous day, and which was used in the preparation of the gravy, had been left standing inadequately covered for twenty-four hours in a room which had a day temperature of at least 80°F.

As no remains of the meal were available for examination, the type of infected organism and the vehicle of infection could not be definitely established, but it seemed highly probable that the gravy was the vehicle of infection.

Fæces specimens or rectal swabs were obtained from five members of the staff still showing symptoms but all gave negative results,

Advice was given in a number of directions, particularly with regard to the storage of cooked food and the personal hygiene of the kitchen staff.

Handling of Food, etc. by Infected Persons.—It was not found necessary to exercise the powers conferred by Section 42 of the Leeds Corporation Act, 1930, during the year.

Scabies.—The number of cases of scabies notified (voluntarily) by medical practitioners during the year was 1,406. All were visited and arrangements made for their attendance at the clinics together with the contacts. The total number of cases ascertained from this and other sources was 5,354. In all 9,480 persons attended and received treatment at the two clinics. In June the clinics at Burley Lawn School and York Road School were closed and treatment concentrated at the clinics at St. James's Hospital and Sweet Street. It is gratifying to be able to record a further decrease in the incidence of this disease.

The following table gives the comparative figures since the Scabies Order came into operation in 1942.

SCABIES ORDER 1941.

Year.	No. of cases notified by Medical Practitioners.	No. of cases treated (from notifications and other sources).	Total No. of treatments (including contacts and re-infestations).
1943 ..	1,645	8,285	12,743
1944 ..	1,515	6,815	11,494
1945 ..	1,432	6,614	10,801
1946 ..	1,406	5,354	9,480

Treatment by means of Benzyl Benzoate continues to give excellent results and cases requiring re-treatment are invariably shown to be re-infestations from an untreated contact rather than failures of the original treatment. Every effort is made to persuade all family contacts to attend for treatment at the same time and in this respect the powers given in the Scabies Order have been useful, but it was not found necessary to take any case to Court during the year.

Pediculosis Capitis.—During the year, 2,946 persons were treated at the clinics involving a total of 3,502 treatments. The number of visits paid to houses was 2,699. It is gratifying to be able to record a distinct drop in the incidence of this condition, particularly in school children.

The following table gives the comparative figures since 1944 :—

PEDICULOSIS CAPITIS.

Year.	No. of persons treated.	No. of treatments involved.	No. of visits paid to houses.
(4 months) 1943	56	86	270
1944	1,178	2,008	1,688
1945	3,808	4,987	3,098
1946	2,946	3,502	2,699

In June the clinics at Burley Lawn and York Road Schools were closed and cases referred to Sweet Street. Full use is being made of D.D.T. At first a powder containing 10 per cent. D.D.T. was used but subsequently an emulsion containing 2 per cent. D.D.T. was found to be more effective and easier to apply satisfactorily. The powder, because of the safety factor, is still given out for home use in the worst cases. D.D.T. is quite the most effective insecticide so far produced, and when used in an emulsion is inconspicuous, has no unpleasant smell, and has the great advantage that the hair can be washed after twenty-four hours without any serious impairment of action as D.D.T. is insoluble in water.

AMBULANCE WORK.

The following table shows the work of the Municipal Ambulance Staff for the year.

PATIENTS REMOVED.

Type of Case.	Number removed.
Accident	1,681
Illness	869
Maternity	4,030
Tuberculosis	433
Hospital	6,404
Social Welfare	247
Mental	116
Lunacy	34
Special treatment	2,692
Others	2,286
Total	18,792*

Patients conveyed by car 6,638†

* In addition, 296 cases were removed by Health Department Ambulances.

† Includes 696 cases removed by Ministry of Health E.M.S. cars.

Infectious Diseases, Ambulance Work and Disinfection.—

Ambulance Work.—During the year under review, 1,880 cases were removed by the ambulances to Killingbeck and Seacroft Infectious Diseases Hospitals. Over and above these, 171 journeys were made for the transference of patients from one institution to another or for returning patients home on discharge from hospital.

The following are details of the cases removed to hospital by the ambulances, viz. :—

Smallpox contact	1
Scarlet Fever	828
Diphtheria	236
Typhoid	5
Measles	45
Other Diseases	765

1,880

(As compared with 1,861 in 1945).

The total mileage run by the ambulances was 23,493 as compared with 24,173 during 1945.

There are now four ambulances for infectious diseases and four bedding vans.

Disinfection.—The following work was done by the disinfecting staff, viz. :—

Houses disinfected	1,761
Rooms	2,924
Beds and Mattresses	7,039
Articles of bed linen	12,962
Articles of clothing	8,950
Other articles	2,345

Disinfectant baths were provided and disinfection of clothing carried out in respect of 18 infectious disease contacts.

The total mileage run by the disinfection and bedding vans was 19,741.

Verminous Persons.—The number of baths given to verminous persons at the cleansing station was 285, while 35 rooms and 3,332 articles of clothing and bedding were disinfected.

Disinfestation.—The following table shows the work done during the year at the Disinfesting Station, Stanley Road.

1. Number of articles fumigated by H.C.N. ..	8,985
2. „ „ „ disinfected by steam ..	3,152
3. „ „ houses dealt with	175
4. Work in connection with house fumigation :	
(a) No. of articles disinfected by steam ..	1,456
(b) No. of houses	90

This subject is again referred to on pages 130 and 139.

Killingbeck and Seacroft Infectious Diseases Hospitals.

BY

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On August 12th, 1946, the patients suffering from infectious diseases were transferred back to Seacroft from Killingbeck, which, since the beginning of the war, had been used as the fever hospital. They were accompanied by the medical staff and by all the nurses in training. There were at Seacroft on this date 51 chronic cases evacuated from Middlesex. Some of these patients have since been discharged and at the end of the year 35 only remained. They are not included in the figures given in this report which refers only to the infectious cases at both Killingbeck and Seacroft.

Admissions.—Patients admitted during the year numbered 2,003, a slight decrease on the figure of 2,179 for the previous year. The smallest number in hospital on any one day was 80, the largest 201, and the average 140.

Particulars of admissions and discharges will be found on page 49. The corresponding figures for 1945 are given in brackets.

Shortage of nurses, now more acute than at any time during the war, has made it impossible since the return to Seacroft to open more than five wards. Admissions, therefore, have been somewhat restricted.

Structural Alterations and Extensions.—It has been possible to carry out only a fraction of what is necessary. "V.W." ward, which during the war served as a theatre, has been reconverted for use as a cubicle block. The students' lecture-room and cloak-rooms have been altered and improved. Plans have been prepared for converting "I" ward into a teaching unit for nurses. It is hoped to make a start on this work very shortly.

Cubicle accommodation in the hospital is less than 10 per cent. of the whole and is entirely inadequate. The scheme for providing 80 new cubicle beds has been abandoned because of building restrictions. Instead, wards "H" and "J" are being

adapted as cubicle blocks. The difficulties here are being more successfully overcome than had been thought possible, but the two wards, when completed, will only provide 36 beds in place of the 60 they originally contained. "E" ward has been leased for a number of years to the Ministry of Health. After considerable structural changes it will be used by the Blood Transfusion Service. The total number of beds in the hospital has by these means been reduced to 406.

Diphtheria.—Admissions were again very low, reflecting a high state of immunity among the pre-school and school children of the city. Only 151 cases completed treatment. Six were fatal, giving a case mortality rate of 4.0 per cent. The rate of 1.4 per cent. in the previous year was the lowest in the hospital records. Three of the fatal cases this year were adults. That 50 per cent. of the deaths should be among adults is unprecedented and is a further indication of the high state of immunity of the child population.

Among 112 typed cases 52 (46.4 per cent.) were gravis, 39 (34.8 per cent.) mitis and 21 (18.8 per cent.) intermedius. The fauces were affected in 125 cases (82.8 per cent.), the larynx in 4 (2.6 per cent.). There were 10 cases of rhinitis (6.6 per cent.) and 12 carriers (7.9 per cent.). Excluding the last two groups, the cases were classified as mild 80 (62.0 per cent.), moderate 36 (27.9 per cent.) and severe 13 (10.1 per cent.). Complications occurred in 16 cases (10.6 per cent.) and paralysis in 13 (8.6 per cent.). One tracheotomy was performed in a case of intermedius type, with fatal result.

Included in the 151 completed cases are 31 patients who had previously been immunised, i.e. 20.5 per cent. Of the immunised cases, 4 were carriers and one had rhinitis. In the remaining 26 the fauces were affected, 23 being mild (88.5 per cent.) and 3 moderate (11.5 per cent.). There were no complications and no deaths.

Erysipelas.—The disease continues to be of a mild type and to respond well to treatment by sulphonamides. The number of cases that completed treatment was 47 and all recovered. In 37 the face was involved, in 8 the leg and in 2 the buttock.

Gastro-Enteritis.—Among 155 notified cases the diagnosis was confirmed only in 92. Of these 18 were fatal, giving a case mortality rate of 19.6 per cent. There were 58 cases under one year of age.

All the deaths occurred among these children, giving a case mortality rate for this age group of 31.0 per cent. Among 6 neo-natal cases the rate was 33.3 per cent. Treatment consisted mainly in the administration of fluids. Where the oral route was impossible owing to frequent vomiting, intra-peritoneal salines were given with good results in many cases. Each child was nursed in a separate cubicle—a matter of the greatest importance.

Meningitis.—Cases treated to completion numbered 20, of whom 4 were fatal. From 6 the meningococcus was isolated, from one (fatal) the pneumococcus and from one the staphylococcus. Two cases were tuberculous (both fatal) and in 10 no organism was isolated (one fatal).

Puerperal Pyrexia.—Patients admitted numbered 47 as compared with 32 during the previous year. The cases were treated with sulphonamides and penicillin, and none was fatal.

Scarlet Fever.—The total of completed cases has fallen to 815 from 1,035 in the year before. In accordance with modern practice, the nursing of cases of scarlet fever at home has been encouraged. One agrees on general lines with this policy but it must be recognised that severe and complicated cases are better nursed in hospital and that many cases cannot be nursed at home on social grounds such as poverty and lack of accommodation for isolation.

The disease was on the whole of a mild type. There were 7 septic cases (0.9 per cent.) and 2 toxic (0.2 per cent.). There were no deaths. The main complications were as follows:—adenitis 48 (5.9 per cent.), otitis media 42 (5.2 per cent.), rheumatism 12 (1.5 per cent.), albuminuria and nephritis 11 (1.3 per cent.) and carditis 3 (0.4 per cent.). Ten cases only (1.2 per cent.) developed a second infection while in hospital. Excluding cases incubating on admission this gives a cross infection rate of 0.7 per cent. The return case rate was 1.7 per cent.

In an attempt to cut down complications, penicillin was given to a number of cases on admission. Alternate cases, irrespective of severity were given 16,000 units intramuscularly 3 hourly for 72 hours. Of 143 test cases, 16, or 11.2 per cent. developed complications, of 134 controls, 20, or 14.9 per cent. developed complications. The numbers are few, the dosage small, the length of the course short. The figures suggest, however, that the experiment might be repeated on a more generous scale.

Tuberculosis.—Cases of tuberculosis treated during the year numbered 33. The lungs were involved in all but one case. In this one there was peritonitis. Terminal meningitis occurred in two cases. The patients were admitted as emergencies for whom no place could be found in the limited number of beds available in sanatoria. They were, therefore, usually extremely ill. There were 19 fatal cases (57·6 per cent.).

Venereal Diseases.—By arrangement with Dr. Robert Lees, Director of the Venereal Diseases Department, ten beds have been reserved since March, 1946, for the treatment of female patients suffering from syphilis. The length of stay is about a week. During this time an intensive course of penicillin is given. The results would appear to be extremely good. The work has been interesting and well worth while. The 251 patients concerned include several admitted from outside the city by arrangement with various local authorities.

Whooping Cough.—The number of cases that completed treatment was 52. There were 9 deaths (17·3 per cent.). The high fatality rate is explained by the fact that the cases were selected and were often severe or complicated. The complication rate was 32·7 per cent. There were 13 cases of broncho-pneumonia, of whom 5 died and 4 cases of convulsions, all fatal.

Staff.—The health of the staff has been generally good. During a difficult year, one's task has been made easy by the hard work and willing co-operation of all members of the staff of both hospitals. One acknowledges with gratitude their unfailing loyalty and kindly help.

SEACROFT HOSPITAL, LEEDS.

YEAR 1946.

ABSTRACT FROM REGISTERS.

	Diphtheria.	Enteric Fever.	Erysipelas.	Measles.	Pertussis.	Scarlet Fever.	Small Pox.	Other Diseases.	TOTAL.
Patients remaining in Hospital, Dec- ember 31st, 1945	25 (16)	.. (..)	3 (2)	.. (5)	5 (5)	113 (154)	.. (..)	35 (32)	181 (214)
Admitted in 1946	128 (150)	1 (3)	45 (58)	10 (203)	61 (27)	753 (994)	.. (..)	1,005 (744)	2,003 (2,179)
Total treated ..	153 (166)	1 (3)	48 (60)	10 (208)	66 (32)	866 (1,148)	.. (..)	1,040 (776)	2,184 (2,393)
Discharged ..	145 (139)	1 (3)	47 (56)	9 (201)	43 (21)	815 (1,035)	.. (..)	924 (658)	1,984 (2,113)
Died	6 (2)	.. (..)	.. (1)	.. (7)	9 (6)	.. (..)	.. (..)	57 (83)	72 (99)
Completed cases ..	151 (141)	1 (3)	47 (57)	9 (208)	52 (27)	815 (1,035)	.. (..)	981 (741)	2,056 (2,212)
Mortality per cent.	4.0 (1.4)	.. (..)	.. (1.7)	.. (3.4)	17.3 (22.2)	.. (..)	.. (..)	5.8 (11.2)	3.5 (4.4)
Patients remaining in Hospital, Dec- ember 31st, 1946	2 (25)	.. (..)	1 (3)	1 (..)	14 (5)	51 (113)	.. (..)	59 (35)	128 (181)
Average days in Hospital for re- covered patients	36.7 (38.3)	41.0 (41.3)	16.6 (19.5)	32.9 (23.9)	45.7 (47.2)	35.5 (24.3)	.. (..)	19.4 (26.6)	27.0 (30.9)

The corresponding figures for 1945 are shown in brackets.

DISEASE.	Total No. of Cases.	Deaths.	DISEASE.	Total No. of Cases.	Deaths.
INFECTIOUS DISEASES:—			Brought forward..	1,476	45
Cerebro-spinal fever ..	6	..	OTHER CONDITIONS—Continued—		
Chickenpox ..	55	..	Gingivitis ..	1	..
Diphtheria ..	151	6	Herpes Zoster ..	2	..
Dysentery ..	18	..	Hysteria ..	1	..
Enteric Fever ..	1	..	Impetigo ..	7	..
Erysipelas ..	47	..	Intussusception ..	2	..
Gastro-enteritis ..	92	18	Laryngitis ..	12	..
Measles ..	9	..	Leukæmia ..	1	1
Mumps ..	16	..	Lung abscess ..	1	..
Ophthalmia Neonatorum ..	8	..	Lymphogranuloma Inguinale ..	1	..
Pneumonia ..	5	..	Malaria ..	1	..
Puerperal Pyrexia ..	12	6	Mastitis ..	1	..
Rubella ..	47	..	Meningitis ..	12	2
Scarlet Fever ..	46	..	Nephritis ..	1	1
Whooping Cough ..	815	..	Observation ..	90	..
	52	9	Otitis Media ..	4	1
			Parotitis ..	1	..
OTHER CONDITIONS			Pyrexia of unknown origin ..	2	..
Abrasions ..	1	..	Quarantine ..	5	..
Abscesses and Boils ..	7	..	Quinsy ..	1	..
Acholic jaundice ..	1	..	Rheumatism (Acute) ..	6	..
Adenitis ..	4	..	Rhinitis ..	4	..
Anæmia (Fernicious) ..	2	1	Salmonella infection ..	3	..
Bacilluria ..	1	..	Scabies ..	1	..
Born in hospital ..	1	..	Scalds ..	1	..
Brucititis ..	8	..	Senility ..	2	1
Carditis (Rheumatic) ..	2	2	Subarachnoid Hæmorrhage ..	1	1
Cavernous Sinus Thrombosis ..	2	2	Syphilis ..	251	..
Cellulitis ..	5	..	Teething ..	4	..
Coeliac Disease ..	1	..	Thrush ..	1	..
Common Cold ..	9	..	Tonsillitis ..	94	..
Convulsions ..	3	..	Toxæmia (unknown origin) ..	1	1
Dermatitis ..	7	..	Tuberculosis ..	33	19
Diabetes ..	2	..	Ulcerated Throat ..	1	..
Diarrhoea ..	22	..	Ulcerative Colitis ..	1	..
Eczema ..	2	..	Ulcerative Stomatitis ..	5	..
Encephalitis ..	1	1	Upper Respiratory Infection ..	2	..
Epistaxis ..	1	..	Urticaria ..	7	..
Erythema Medicamentosum ..	3	..	Vincent's Angina ..	3	..
Erythema Toxicum ..	11	..	No evidence of disease ..	13	..
Carried forward ..	1,476	45	Total ..	2,056	72

Seacroft Emergency Hospital

BY

A. A. DRIVER, M.D., D.P.H.,

Acting Medical Superintendent.

At the beginning of the year Seacroft Hospital continued to serve as a unit of the Emergency Medical Services and the patients were both military and transferred chronic sick from London. There was a period of considerable diminution of activity which resulted in the transfer of all the military sick and wounded to Meanwood Park Emergency Hospital on the 31st May, 1946. The chronic sick, however, remained in Seacroft and fifty-one continued to remain after the transfer of the fever cases on 12th August, 1946.

Seacroft Lodge Emergency Hospital continued as a convalescent annexe to Seacroft until the 17th June, 1946, when it was transferred to the administrative control of Meanwood Emergency Hospital.

In the intervening period between May and August a considerable amount of reconstructive work took place with a view to the impending return of the fever cases. This included the complete rehabilitation of wards "K," "M," "V" and "W," which two latter wards had served throughout the war as a complete theatre unit. In addition, work was started upon the conversion of ward "H" into cubicles in order to provide the necessary increase in cubicle bed space for nursing fever patients.

The total number of patients admitted between 1st January and 31st May was 652, of which 639 were Service cases and 13 miscellaneous civilian cases. The total number of admissions to Seacroft was 175.

The number of cases treated to conclusion up to 11th August was 875 and of these 28 died, 21 being from among the chronic sick evacuees. This gives a hospital mortality of 3.2 per cent.

During the seven years Seacroft has been an Emergency Services Hospital, 24,413 patients have been treated, and of these 21,732 were Service cases.

Radiological Department.—Radiological examinations of 748 patients were made between 1st January and 31st May, of which 45 were investigations of the stomach and duodenum, and 301 examinations of the chest.

Massage Department.—The work in this Department gradually diminished. Treatments numbering 213 were given to 69 patients.

Surgical Operations.—A brief summary of operations performed from 1st January to 31st May is given below :—

Abdominal	41
Eye, ear, nose and throat	6
Gunshot wounds	11
Genito-urinary	15
Gynæcological	7
Orthopædic	5
Rectal	33
Varicose veins	8
Miscellaneous	33
	<hr/>
	159
	<hr/>

Pathological Laboratory.—The number of specimens examined and reported on is as follows :—

Bacteriology	550
Chemistry	363
Hæmatology	351
Histology	9
Post-mortem examinations	3
	<hr/>
	1,276
	<hr/>

SUMMARY OF CASES ADMITTED.

	Males.	Females.
Abscesses	35	1
Abdominal conditions	60	5
Circulatory diseases	12	2
Fractures	9	..
Genito urinary diseases.. .. .	35	6
Gunshot wounds	1	..
Infectious diseases	94	8
Injuries other than fractures	28	9
Malignant diseases	3	..
Respiratory diseases	48	8
Tuberculosis	3	2
Diseases of the digestive system	40	4
Diseases of the ear, nose and throat	52	7
Diseases of the eye	6	..
Diseases of muscle, bones and joints	8	2
Diseases of the nervous system	26	5
Diseases of the skin	92	5
Miscellaneous conditions	36	..
Total	588	64

Venereal Diseases.

The number of deaths certified as due to syphilitic diseases was 34, a decrease of 10 on the figure for the previous year. The corresponding death-rate was 0.07 per thousand of the population.

Work of the Treatment Centre.—The total number of new Leeds cases registered at the Leeds General Infirmary was syphilis 248 males and 177 females, soft chancre 2 males, gonorrhœa 560 males and 259 females, and other diseases not venereal 1,130 males and 395 females, total 2,771 cases. As compared with the previous year these figures represent in the case of syphilis an increase of 132 males and a decrease of five females; in soft chancre an increase of two males; in gonorrhœa an increase of 243 males and nine females, and in other diseases not venereal, an increase of 446 males and a decrease of 70 females. Taking the cases of all types there was an increase of 757 as compared with the figure for the previous year, but taking syphilis and gonorrhœa together there was an actual increase of 379.

The total attendances of all Leeds cases was 52,676, an increase of 12,861 on the figure for the previous year.

The number of cases ceasing to attend before completion of treatment or final tests of cure from Leeds and the other contributory areas was 429 or 6.6 per cent. of the total attending the centre as compared with 251 or 5.0 per cent. for the previous year.

The number of in-patients treated at Leeds General Infirmary and other hospitals in Leeds and the West Riding, from Leeds and the other contributory areas was 510 as compared with 50 for the previous year and the corresponding number of in-patient days was 3,837 as against 145 for 1945.

The report by Dr. Robert Lees, Director of the Venereal Diseases Department at the Leeds General Infirmary on page 57 gives details of the work carried out at the Treatment Centre.

Defence (General) Regulation 33B.—The notification of venereal diseases under Defence (General) Regulation 33B continued in force during the year. The table appended gives comparative details for the years 1945 and 1946.

COMPULSORY TREATMENT OF VENEREAL DISEASES.
DEFENCE (GENERAL) REGULATION No. 33B.

	1945			1946		
	Male	Female	Total	Male	Female	Total
Notifications on Form 1	4	362	366	1	54	55
No. of contacts specified	4	304	308	1	37	38
No. specified on two or more Forms 1	42	42	..	10	10
Form 2 served	38	38	..	5	5
Examined by persuasion after dual notification	22	22	..	2	2
Examined after service of Form 2	19	19	..	2	2
Form 3 served	36	36	..	7	7
Untraced	4	4	..	3	3
Clearance certificate issued	19	19	..	19	19
Transferred to other areas

Supply of Salvarsan Substitutes.—The number of medical practitioners in the area qualified to receive free supplies of salvarsan substitutes up to the end of the year was 55, and the amount distributed was 824 doses, as compared with 740 in 1945.

For particulars of the work of the special clinic for mothers and babies suffering from venereal diseases held in connection with Maternity and Child Welfare, see page 107.

LEEDS PATIENTS.

	Year 1945		Year 1946		Increase or Decrease.	
	M.	F.	M.	F.	M.	F.
Syphilis first cases	116	182	248	177	+132	- 5
Soft chancre .. .. "	..	..	2	..	+ 2	..
Gonorrhœa "	317	250	560	259	+243	+ 9
Other diseases, not Venereal "	684	465	1,130	395	+446	-70
Total	1,117	897	1,940	831	+823	-66
Total attendances of all cases	39,815		52,676		+12,861	
Aggregate No. of In-patient days	93		1,337		+ 1,244	
No. of doses of Salvarsan sub- stitutes	12,328		11,597		- 731	
Pathological specimens examined :—						
Spirochetes	85		165		+ 80	
Gonococci	5,687		12,274		+ 6,587	
Other organisms	342		3,774		+ 3,432	
Blood—Wassermann re- action	3,698		11,726		+ 8,028	

PERSONS TREATED AT THE GENERAL INFIRMARY AT LEEDS
(LOCAL TREATMENT CENTRE).

	Syphilis		Soft Chancre.		Gonorrhœa.		Other Diseases not Venereal.	
	M.	F.	M.	F.	M.	F.	M.	F.
Under observation and treatment, 1st January, 1946 ..	867	793	..	..	280	169	111	87
Added to register during year	533	282	2	..	952	349	1,520	520
Discharged as cured	66	87	1	..	471	175	1,183	372
Died	16	5	..	..	..	..	1	..
Transferred	108	69	..	..	101	38	134	18
Under treatment on 31st December, 1946	1,092	868	1	..	504	246	313	217
Defaulters	139	71	..	..	159	60	..	..
*No. of attendances .. { (a)	17,126	17,725	21	..	10,503	2,805	9,453	2,481
.. { (b)	1,202	745	..	..	834	2,113	1,076	1,170

* { (a) For medical consultations and treatment.
 { (b) For intermediate treatment.

PATHOLOGICAL WORK

	MICROSCOPICAL.		Cultures for Gonorrhœa.	SEROLOGICAL		C.S.F.
	Syphilis.	Gonorrhœa		Syphilis.	Gonorrhœa.	
Examined at Treatment Centre ..	246	4,318	..	..	..	..
Sent to Lab- oratory ..	193	6,512	8,444	15,966	426	987

STATEMENT SHOWING THE SERVICES RENDERED AT THE TREATMENT CENTRE DURING THE YEAR, CLASSIFIED ACCORDING TO THE AREA IN WHICH PATIENTS RESIDED.

	Syphilis.	Soft Chancres	Gonorr- hœa.	Non- Venereal, Undiagnosed Conditions.	Total.	Total No. of Attendances.
Leeds	425	2	819	1,525	2,771	52,676
Barnsley .. ..	..	..	..	6	6	48
Bradford	4	..	5	14	23	272
Dewsbury	4	..	..	5	9	120
Doncaster	1	..	3	4	8	65
Halifax	1	..	1	4	6	99
Huddersfield	1	..	3	1	5	42
Hull	1	..	2	8	11	86
Sheffield .. ..	..	..	..	2	2	4
Wakefield	3	..	4	7	14	211
York	1	..	1	6	8	41
N. Riding, Yorks.	..	..	..	4	4	81
W. Riding, Yorks.	132	..	186	438	756	12,930
Lancashire .. ..	..	..	..	1	1	3
Lincolnshire	1	..	..	..	1	14
London .. ..	..	..	..	1	1	3
Royal Navy	1	..	..	..	1	34
Army	2	..	..	8	10	54
Royal Air Force .. ..	..	..	..	1	1	14
Home Office .. ..	..	..	2	2	4	457
	577	2	1,026	2,037	3,642	67,254

Venereal Diseases

BY

ROBERT LEES, M.D., M.B., Ch.B., F.R.C.P.,

Venereal Diseases Officer.

Premises and Equipment.—The main clinic for male and female patients is conducted in premises in the General Infirmary, where six beds in medical wards are also available, four for female and two for male cases.

The premises have been painted and cleaned and minor structural alterations made. The existing waiting rooms have been used as consulting rooms, but by increasing the number of sessions and the length of sessions, the patients have to wait relatively short periods and some slight measure of privacy is provided.

The equipment of the clinic was improved by acquisition of surplus medical stores from Seacroft Emergency Hospital. The most serious shortages are microscopes, two instruments of good quality being necessary. Provision of microscopes enables the diagnosis by the clinic staff to be established immediately in a large number of cases, and the cost of the instruments would be saved in less than a year by reduction in the charges for specimens examined in the Medical School.

Subsidiary Centres.—A subsidiary clinic is held at the Central Clinic in Park Square. This is used mainly for the examination of babies prior to adoption.

A clinic for expectant mothers is conducted on Saturday morning at the Maternity Hospital. This clinic has become very popular, and is used in the diagnosis and treatment of syphilis and gonorrhœa. Large numbers of patients are seen in consultation, being referred by the medical staff of the hospital, by the ante-natal centres in the city, and by practitioners in the region. This work is of very great value, and is an essential part of the service of a modern maternity hospital. In my opinion this side of the work will increase greatly. Several infants suffering from congenital syphilis have been treated in the hospital during the first weeks of life; trial has been made of oral use of penicillin, and the results are encouraging.

St. James's Hospital.—There are no beds for Venereal Diseases in St. James's Hospital but cases are seen in consultation there every week, as a large general hospital must inevitably admit cases which are due to the late effects of venereal infections. It is of value to have the opinion of the Consultant in such cases, and this also ensures to some extent that the patients are followed and out-patient treatment given subsequently in co-operation with the general practitioner. In my opinion it would be of the greatest value to have beds specifically allocated for Venereal Diseases in St. James's Hospital.

Seacroft.—Ten beds are available for the treatment of female cases and young children. These beds are used almost exclusively for the intensive treatment of contagious cases of syphilis. They have been invaluable and many cases that were a public danger have been rendered non-contagious in a short time. Examples of such cases are (i) a woman who had been a prostitute for 25 years, (ii) a waitress who lived in lodgings, and (iii) a child with very contagious mouth and skin lesions.

Other Hospitals.—Many cases have been referred for admission and urgent treatment to hospitals in the West Riding. On one occasion admission to hospital in Sheffield was arranged. The closest co-operation with the Venereal Diseases Officer for the West Riding is maintained.

The Hope Hospital.—This institution has been fully employed, but cases are selected mainly on the basis that long term residence is needed for the education and moral rehabilitation of the patients.

Forty-nine women were admitted during the year and 11 babies were born in the hospital and 5 other babies were admitted. Of the adult patients 40 were treated for syphilis and 19 for gonorrhœa. One baby died during the year.

With the accelerated tempo of medical treatment of Venereal Diseases, it was felt that increased attention could be devoted by the staff to the educational aspects of the work, and that much more should be done to improve the capacity of the girls to reinstate themselves in society.

The table on page 59 gives details of the cases admitted to and treated in the Maternity and Hope Hospitals.

MATERNITY HOSPITAL, 42, HYDE TERRACE.

	Cases in residence on Dec. 29th, 1945.	Cases admitted.	Cases discharged.	Cases in residence on Dec. 28th, 1946.
Syphilis	54	51	3
Gonorrhœa	2	2	..
Syphilis and Gonorrhœa
Other disease
Total	56	53	3

Total days in residence 525

No. of doses of Salvarsan substitute .. —

Pathological specimens examined :—

Blood—Wassermann reaction.. .. 3,768

HOPE HOSPITAL, 126, CHAPELTOWN ROAD.

	Cases in residence on Dec. 29th, 1945.	Cases admitted.	Cases discharged.	Cases in residence on Dec. 29th, 1946.
Syphilis	12(+4)	31(+2)	33(+5)	10(+1)
Gonorrhœa	4	15(+1)	17(+1)	2
Syphilis and Gonorrhœa	1	3	3	1
Others .. ..	..(+1)	..(+13)	..(+13)	..(+1)
Total	17(+5)	49(+16)	53(+19)	13(+2)

Total days in residence 6,005 (+1,622)

No. of doses of Salvarsan substitute .. 182

Pathological specimens examined :—

Spirochetes —

Gonococci.. .. 20

Other organisms 104

Blood—Wassermann reaction.. .. 128

Of the 49 women admitted, 16 had babies, shown in the above table in the brackets.

Medical Staff.—The Venereal Diseases Officer and Director of the Department for Venereal Diseases in the General Infirmary is Dr. Robert Lees, M.D., F.R.C.P., who assumed duty on 1st March, 1946. Dr. W. Fowler is Senior Male Assistant Medical Officer. Dr. F. Debney is Registrar (Special Ex-Service appointment for six months). Dr. W. Silverton is Assistant Medical Officer (for six months). Dr. Betty Walker acted as Medical Officer during 1946 but resigned her appointment on 1st December and was succeeded by Dr. (Mrs.) J. R. G. Buchanan. In addition, Dr. Hardy works part-time as an honorary clinical assistant.

Nursing Staff.—An additional trained staff nurse was appointed during 1946. This ensures that a fully trained nurse is available constantly between 8 a.m. and 8 p.m. six days per week for carrying out treatment of patients.

Male nurses have been appointed, the minimum qualification being the Army grade of "Special Treatment Orderly Class 1"; this implies that the orderly has had a thorough training in the technical methods of diagnosis and treatment of Venereal Diseases.

Number of Cases.—The year 1946 has been the busiest in the history of the Venereal Diseases Department. The number of new cases totalled 4,158 and the number of attendances for medical consultations and treatment was 60,114. In addition routine treatment was given by the nursing staff on 7,140 attendances by patients.

This record number of new patients is part of a post-war increase which will probably subside gradually. A substantial proportion of the patients had acquired the disease while serving in H.M. Forces overseas. Many patients who had been treated while serving in the Forces came for tests of cure. Apart, however, from these groups a very large proportion of fresh venereal infections are acquired locally, and in spite of all efforts to locate the persons involved, there remains a considerable reservoir of infection in the community, which can only be reached by increase of the social services of the clinic.

Diagnostic Tests.—There has been a very marked increase in the number of bacteriological and serological tests done. This is partly due to a change in methods necessitated by modern technique of treatment and exacting tests of cure. The number of specimens examined in the clinic was 4,564 and the number sent to the laboratories of the Medical School was 31,541. The technique of culture

diagnosis of gonorrhœa is very reliable, and has been used extensively to control results of treatment. The serological diagnosis of syphilis has proved troublesome at times, and in some cases specimens have been referred to the Ministry of Health Reference Laboratory for further investigation.

The number of lumbar punctures performed was 987. This is a considerable achievement as the premises are very unsuitable. Sterility has been ensured by preparation of special "lumbar puncture packs" which are sterilised in advance in an autoclave. Lumbar puncture is essential for the detection of a symptomatic neurosyphilis and for the control of established neurosyphilis. The operation is virtually painless, has very few sequels and is now accepted by the patients as a normal part of their treatment.

Type of Disease.—The statistical tables on pages 55 and 56 show the incidence of syphilis and gonorrhœa. A few cases of chancroid and lympho-granuloma inguinale have been seen—these individuals contracted the disease abroad. The proportion of cases classified as "non-venereal" is misleading in that many such cases are the direct consequence of infection acquired during sexual intercourse. Non-gonococcal urethritis is very prevalent and demands thorough investigation and treatment. Observations have been made on the etiology of such cases, and it has been found that the majority give a negative Frei test. Their relation to Reiter's Disease and to "abacterial pyuria" has been studied, and also the therapeutic value of neoarsphenamine. This work is being done with the assistance of Dr. Debney who holds a special grant as an Ex-Service Specialist.

The treatment of trichomonas vaginalis infestation of women is also the subject of special study by Dr. Buchanan.

Admissions to Hospital.—A very small number of beds is available in the General Infirmary—during the greater part of the year there were two beds for male cases and four beds for females. This allocation is pitifully small, and ten times that number of beds could be used with profit. Many patients are denied the benefit of in-patient investigation and specialised treatment; there can be no dispute that this is greatly to the detriment of the community and extremely disheartening to the medical staff. The available beds have been occupied constantly, and in emergency, beds have been "lent" by indulgent medical colleagues.

The number of admissions to the General Infirmary in 1946 was 125 and the average stay in hospital was 15 days. The type of case treated has mainly been neurosyphilis and cardiac syphilis, complications of treatment such as exfoliative dermatitis and severe jaundice, congenital syphilis, and very contagious secondary syphilis. It is very valuable for the teaching of nurses, students and post-graduates that such cases should be treated in the teaching hospital.

A considerable number of cases of syphilis of the nervous system have been treated by penicillin and the inoculation of malaria. The nursing staff have been very skilful and co-operative in the care of these very exacting cases. Malaria therapy demands the very highest standard of nursing and our freedom from deaths and serious complications is due to the skill and devotion of the nursing staff. It is hoped that in the near future it will be possible to provide fever therapy by the much safer and more efficient technique of hypertherm cabinet treatment.

The treatment of contagious cases in Seacroft and other Hospitals has already been discussed.

Social Service.—The increase in the work of the Clinic has involved a great increase in the demands on the Social Service or Almoner's Department. It has been found impossible for the Almoner (Miss Hearn) to undertake all the case tracing, contact finding, and follow-up work in the attempt to reduce default to a minimum. Though the Lady Almoner has paid 993 visits to patients, much of the follow-up has had to be done by correspondence, and this is notoriously less satisfactory than personal visit and interview. Authority was granted for the appointment of an additional Almoner, but advertisements produced no applicants, and the poor accommodation available and other unsatisfactory features of the work deterred other potential candidates. There is need for a very intensive drive on case-finding, contact tracing and family examination and follow-up. It need not be emphasised that every fresh case is the starting point of an investigation into the source of the disease, and that many of the contacts or other members of the family may have to be traced, interviewed and examined.

Such work has medico-legal importance, and the staff of the Clinic have been called upon to give evidence in various Courts. Recently a woman was convicted for neglect of her children who suffered from congenital syphilis. Several divorce actions and similar matrimonial cases have involved evidence regarding venereal disease.

Leeds City General Hospitals

BY

W. McINTOSH, M.B., Ch.B.,

Medical Director.

ST. JAMES'S HOSPITAL (SOUTH).

The number of patients of all categories admitted to hospital and the total treated are shown in the following table, together with the numbers of discharges and deaths, and of patients remaining at the end of the year:—

	Men.	Women.	Children.	Total.
Remaining in hospital on 31st December, 1945	282	449	167	898
Admitted during 1946.. ..	3,335	6,374	1,299	11,008
Children born during 1946 .. ..	..	..	1,626	1,626
Total admissions and births ..	3,335	6,374	2,925	12,634
Total number treated during 1946	3,617	6,823	3,092	13,532
Discharged during 1946	2,636	5,870	2,771	11,277
Deaths	673	480	163	1,316
Total discharges and deaths ..	3,309	6,350	2,934	12,593
Remaining in hospital on 31st December, 1946	308	473	158	939

The total number of admissions and births rose by 2,244, and 1,316 patients died in hospital—an increase of 122 over the previous year.

There was a considerable reduction in the number of Service cases admitted, a total of 191 being recorded compared with 563 in 1945. This enabled half of one of the wards allocated to military patients to be utilized for civilian surgical cases. There were 3 deaths and only 15 Service patients remained in hospital on 31st December, 1947.

Medical.—It was possible during the year to re-open one half of a large female medical ward, and this measure helped to ease the pressure on beds for such cases. The further adaptations and conversions at St. James's Hospital (North), and the ultimate transfer elsewhere of Social Welfare patients from that hospital to make room for the chronic sick housed in St. James's Hospital (South), was also instrumental in relieving the situation to an appreciable extent.

In the Autumn a medical unit, comprising 66 beds, was established under the clinical control of the whole-time Professor of Medicine, Professor R. E. Tunbridge, and this unit is now functioning satisfactorily as part of the Clinical Teaching School of the University of Leeds.

Surgery.—On the surgical side there is to be noted an increase in the number of operations of a major type, the figure for 1946 being 3,891, or 792 more than that for the previous year. In addition 723 minor operations were performed.

Despite the cessation of hostilities, the number of major operations performed in the Plastic and Maxillo-Facial Unit remained as high as that for the year 1945, cases being drawn from a very wide area. Altogether, 607 major operations on civilian and Service patients, excluding emergency cases, were carried out.

Children's Diseases.—In the children's wards there was an increase in admissions of 204, and 163 deaths were recorded.

The continued shortage of nurses made it impossible to open the middle floor of 'K' Block to provide additional accommodation for children.

At the latter end of the year a Pædiatric Unit, under the whole-time Professor of Pædiatrics, Professor W. S. Craig, was formed.

A ward at Cookridge Hospital was utilized for the accommodation of long-stay children, thus accelerating the turnover in the children's wards.

No major epidemics occurred, and there was nothing calling for further comment.

Midwifery and Gynæcology.—The number of confinements carried through was 1,674—an increase of 291 over the previous year, and the highest number recorded since the re-opening of the Unit in the Summer of 1942.

The number of maternal deaths was 2, one due to eclampsia and the other to uræmia following suppression of urine, the result of accidental hæmorrhage. There were 81 still-births. The ante-natal clinic was attended by 1,664 new cases, and the post-natal clinic by 513. Altogether there were 9,022 attendances at the ante-natal clinic.

The causes of death of infants within ten days of birth were prematurity 46, intracranial hæmorrhage 4, gastro-enteritis 3, congenital abnormality 5, pneumonia 1, atelectasis 6; a total of 65. The number of cases notified as puerperal pyrexia was 21.

Cases of diarrhœa and gastro-enteritis in the Maternity Unit occurred sporadically throughout the year, although the number showed a considerable decrease over the previous year. Steps were taken to check the incidence and the wards were closed and cleaned in rotation as before. Towards the end of October a new form of prophylactic treatment was instituted with gratifying results. It is worthy of note that in November only one baby was affected, and during the whole of December the wards were entirely free from infection.

The case-rate of infants per 1,000 live births was 18.5 and the case mortality rate 40.0 per cent as compared with 45.5 and 27.9 per cent. for the previous year.

The following table shows the number of cases of gastro-enteritis and diarrhœa notified during the year under review:—

GASTRO-ENTERITIS IN MATERNITY UNIT.

Month	Cases Notified		Deaths	
	Mothers	Babies	Mothers	Babies
January	2	1	..	1
February	4	6	..	2
March	4	8	..	3
April	3	2	..	1
May	9	4	..	1
June .. .. .	..	1	..	..
July	8	2	..	1
August	3	..	..	..
September	2	1	..	..
October	8	4	..	3
November .. ..	..	1	..	..
December .. ..	..	..	..	..
TOTAL	43	30	..	12

An innovation, and a much needed one, was the provision of a canteen for patients attending the ante-natal clinics. This was established in the Waiting Room at the Lodge, and was in use for the first time on 25th October, 1946.

Recognition of the hospital as an approved training school for the Gas and Air Certificates in respect of midwives and pupil midwives, was received from the Central Midwives Board, and on 12th November, 1946, the appropriate lectures and demonstrations in Gas and Air Analgesia were commenced, the first course being attended by nine Midwifery Sisters.

Psychiatry.—The work of the Mental Observation Wards continued on the usual lines, namely the custody of approximately 120 permanent detention cases, and the assessment of cases sent for short periods of observation. Some of the permanent detention cases are able to assist with the domestic work of this division of the hospital, while others are constantly in bed. The cases for observation are admitted, for the most part, from their homes, usually following the occurrence of symptoms causing complaint or alarm to their relatives or neighbours, but a fairly large number have been wisely reported to the Relieving Officer prior to the onset of violent symptoms. This is specially desirable in patients suffering from depression in middle or later life as the result of treatment of these cases in the Mental Hospitals shows a high percentage of recoveries. Other admissions come from police courts and a few young persons are admitted from Remand Homes and Training Institutions. A certain number of confused cases, occurring in the general wards of our own and other hospitals, are admitted for mental nursing.

A high proportion of cases, 51·8 per cent., has to be transferred to a Mental Hospital for further observation and treatment, but 35·5 per cent. are returned to their homes.

The difficulty in obtaining beds in the Meanwood Mental Deficiency Colony greatly handicaps the work here as the beds occupied by mentally deficient children and adults, and the nursing staff required to look after them, prevents the better sub-division among the other patients.

Of the 256 patients transferred to Mental Hospital, 47 (18·4 per cent.) applied for admission on a voluntary basis, and 5 were sent as temporary patients.

No patients were certified for permanent detention during the year.

The statistics for the Department are recorded in the following table :—

	Men	Women	Total
Remaining in hospital on 31st December, 1945	61	118	179
Admissions :			
From outside	171	256	427
Transferred from hospital general wards	18	37	55
Transferred from other hospitals or institutions	1	13	14
Total admissions and transfers ..	190	306	496
Discharges :			
To Mental Hospital as certified cases	78	126	204
To Mental Hospital as voluntary patients	17	30	47
To Mental Hospital as temporary patients	2	3	5
To Mental Deficiency Authorities ..	1	3	4
To hospital general wards ..	12	47	59
To other Institutions	4	8	12
Discharged Home	49	56	105
Total Discharges	163	273	436
Died	25	46	71
Remaining in hospital on 31st December, 1946	63	105	168

Radiology.—During the twelve months under review, 5,603 patients were X-rayed—an increase of 821 over the previous year. Of these, 483 were screened as compared with 431 in 1945. The number of portable examinations amounted to 351.

The Department continued to deal with cases from the Leeds Herzl-Moser Hospital and 41 patients from this Institution were dealt with,

In order to meet the heavy demand upon this Unit after normal working hours it is proposed to inaugurate a system of 'staggered' hours thus increasing the turnover of cases, but this cannot be put into operation until additional staff is obtained for the purpose.

Physiotherapy.—In spite of persistent staffing difficulties a new record total of 49,337 treatments was carried out, this figure showing a striking increase (12,202) over the record for the previous year.

The number of new in-patients who were treated by the Department was 796 compared with 579 for the previous year and the number of new out-patients was 348. In all, 1,515 out-patients were treated, making 7,378 out-patient attendances. The total number of patients treated was 20,518.

New Service patients numbered 32, this figure showing a considerable decrease over the year 1945. At the Fracture Clinic 544 patients were dealt with, making 963 attendances.

On 30th April, 1946, one physiotherapist attended a special post-graduate course at the Leeds Maternity Hospital on "Childbirth Methods" in relation to physiotherapy. This is a comprehensive scheme covering the ante-natal, natal, and post-natal methods. When adequate staff is available in this Department it is proposed that such work should be undertaken in the Maternity Unit at St. James's Hospital.

Pathology.—During 1946 the routine clinical investigations totalled 16,830, a volume of work which now approximates to the maximum pre-war level.

In 1945, the work done reached a new record level of over 2,000 hæmotological investigations but in 1946 that record was left far behind, the total being 3,872 investigations. Similarly, blood grouping reached a level of 2,486 investigations or double the volume for the previous year.

Autopsies reached a total of 402, also a new record. This Department continues to yield an appreciable quantity of valuable teaching and research material, and there are now many good specimens awaiting preparation for the museum.

During the past year we have had the good fortune to have the assistance of Dr. E. G. Hardy. It would have been impossible to carry on even the present imperfect service without his help.

The establishment of the Professorial Units in this hospital, notably the Medical Unit, has greatly increased the amount of work to be done, and even with two pathologists, it has become necessary to pass a good deal of the chemical pathology to Professor Fowweather at the Leeds School of Medicine, pending the appointment of a chemical pathologist to this hospital.

The notable increase in hæmatological and serological investigations calls for the appointment of a whole-time hæmatologist in addition to the other three members of the proposed scientific staff. The appointment at an early date of a bacteriologist, biochemist and hæmatologist to the Department has become a matter of extreme urgency.

Staff.—The hospital suffered a great loss by the death, on 6th November, 1946, of Mr. H. O. Morant, Hospital Steward for over twenty years. A Memorial Service was held in the Hospital Chapel on 9th November, 1946, attended by many mourners.

On 1st May, 1946, Dr. W. McIntosh was appointed Medical Director of Leeds Municipal General Hospitals and Medical Superintendent of St. James's Hospitals (North) and (South).

On 9th November, 1946, Dr. James W. Affleck was appointed Deputy Medical Superintendent of St. James's Hospital, for duties in the Outer Group of Municipal General Hospitals.

On 10th December, 1946, Rev. H. T. Matthews was appointed Chaplain (Church of England) to St. James's Hospitals (North) and (South), following upon the resignation of the Rev. R. Whitwell. A Special Service was held in the Hospital Chapel on 18th December, 1946, conducted by the Right Reverend the Lord Bishop of Ripon, to introduce Mr. Matthews.

The appointment of an Anæsthetic Officer in October, 1946, met a demand which had been increasing within recent years.

During the year twenty-eight ex-Service medical practitioners were accepted by the hospital under the Ministry of Health Scheme of Post-Graduate Education for Demobilized Medical Officers. These men have held supernumerary posts as well as posts in the approved establishment of the hospital, and this increase in the medical staff has contributed very materially to the more efficient treatment of the patients.

The Medical Faculty of St. James's Hospitals (North) and (South), established in November, 1945, held ten Ordinary and three Special Meetings. At the Annual General Meeting in November, 1946, Dr. J. Johnstone Jervis, Medical Officer of Health, was unanimously elected to the Chair in the place of Mr. L. N. Pyrah.

Early in the year St. James's Hospital received recognition from the Royal College of Surgeons of England, under the regulations governing the Diploma of Fellowship, in respect of the posts of Resident Surgical Officer and First House Surgeon. The hospital was also recognized by the Royal College of Obstetricians and Gynæcologists in respect of the posts of Resident Obstetric and Gynæcological Officer, and Obstetrical House Surgeon.

In December, 1946, the Health Committee accepted the offer of the British Red Cross Society, of accommodation, up to twelve beds, at the Arthington Hall Auxiliary Hospital for convalescent male patients from St. James's Hospital. This arrangement will facilitate the more rapid turnover of beds in the acute wards by the transfer of patients still requiring modified hospital treatment.

Nursing Staff.—Approval of St. James's Hospital as a Complete Training School for Male Nurses, for a period of two years from 28th June, 1946, was granted by the General Nursing Council early in the year, and five male trainees entered the first School on 27th August, 1946. These student male nurses cannot be lodged in the hospital owing to the lack of suitable quarters, but certain existing accommodation at the Lodge was converted successfully into a sitting-room and a study-room to meet their needs.

On 3rd July, 1946, Miss D. R. Waller took up her appointment as Deputy Matron of St. James's Hospital (South) as successor to Miss E. Moore, and on 15th October, 1946, Miss M. E. Johnson was appointed to the post of Junior Assistant Matron consequent upon the resignation of Miss B. M. Westcott.

Following upon the receipt of a Ministry of Health Circular, "Staffing the Hospitals," a Nurses' Representative Council was set up, and meetings are now held at regular monthly intervals.

This year 94 students entered the Preliminary Training School, and of these 61 were accepted for training. The number of nurses in training at 31st December, 1946, was 128. As the establishment is 230 this figure shows a serious deficiency.

The results of the State Final Examinations were highly creditable, 98·3 per cent. passes being recorded. The percentage of passes in respect of the State Preliminary Examinations showed 91·3 per cent. passes for Part 1, and 83·3 per cent. for Part 2.

The results of the Central Midwives Board Examination (Part 1) have been as follows :—

Entered, 38 ; Passed, 21 ; Failed, 17. (55·3 per cent. passes.)

Re-entries, 8 ; Passed, 6 ; Failed, 2. (75 per cent. passes.)

General.—The main feature of the year was the persistent and acute shortage of nursing staff. The acceptance of male trainees and male assistant nurses has helped to remedy this deficiency to a small extent, but the shortage has hampered efforts to reduce the somewhat large waiting lists for the non-acute cases, owing to the impossibility of re-opening and staffing wards.

Lack of suitable accommodation for the resident medical staff is also a problem which cannot be overlooked. Unfortunately, there is little hope at the present time of acquiring additional and more desirable quarters on account of the restriction on building. Certain posts under the Ministry of Health Scheme of Post-Graduate Education for Demobilized Medical Officers carry with them the necessity for residence in the hospital, and the absence of suitable residential accommodation force such Registrars to become non-resident, thus impeding the efficient carrying out of their medical duties.

A matter of urgent necessity is the establishment of a Staff Canteen, and plans are in preparation to overcome this deficiency as early as possible in the coming year. During the war years a large room was placed at the disposal of Service patients for recreational activities, but owing to the large reduction in the number of military patients it has been possible to release this building, and the intention is to convert it into a canteen.

ST. JAMES'S HOSPITAL (NORTH).

The following table shows the number of admissions, discharges and deaths in respect of Public Health cases—including E.M.S. (civilian) cases—during the year 1946 :—

	Men	Women	Total
Remaining in hospital on 31st December, 1945	158	140	298
Admitted during 1946	197	331	528
Total Number treated during 1946 ..	355	471	826
Discharged during 1946	48	83	131
Deaths during 1946	153	220	373
Total discharges and deaths ..	201	303	504
Remaining in hospital on 31st December, 1946	154	168	322

In addition to the above, 126 Social Welfare cases were admitted, comprising 111 women and 15 children. This brought the total number of Social Welfare inmates housed during the year to 223.

The number of discharges amounted to 221, including 17 children, and on 31st December, 1946, only two female Social Welfare cases remained in the hospital.

The number of patients remaining in the hospital on 31st December, 1946, who were evacuated from London Hospitals in August, 1944, was 11.

During 1946 the process of adapting and equipping wards was continued, and Wards 48 and 51 (both female wards) have been opened. Patients have been transferred to these wards from the old Block 4.

From 19th September, 39 female Social Welfare inmates were transferred to Red Hall and on 5th December, 41 similar cases were transferred to Stratford House. This freed the hospital of Social Welfare cases, although it still has to provide accommodation for female casuals.

Considerable progress has been made during the year with the adaptation of Blocks 5 and 6 for use as a Nurses' Home and School. The building should be ready for occupation by the middle of 1947.

The Laundry, despite obsolete equipment, has washed more articles than ever before—almost 2,000,000 (1,988,869).

Nursing Staff.—The female nursing staff at 31st December, 1946, was approximately 42 per cent. below the number required to nurse patients irrespective of holidays or illness, and consisted of :—

- 10 Female Trained Nurses (including the Matron and Assistant Matron).
- 2 Male Trained Nurses.
- 29 Female Enrolled Assistant Nurses.
- 28 Male Enrolled Assistant Nurses.
- 11 Female Intermediate Assistant Nurses.
- 15 Male Intermediate Assistant Nurses.

A Nurses' Representative Council was set up in this hospital, under the ægis of the Health Committee, and one meeting is held each month.

ST. MARY'S INFIRMARY.

The following table provides the statistics in relation to the admissions, discharges and deaths of patients during the year :—

	Men.	Women.	Children.	Total.
Remaining in Infirmary on 31st December, 1945	24	112	37	173
Admitted during the year	44	1,864	29	1,937
Births .. .. .	..	..	1,544	1,544
Total admissions and births ..	44	1,864	1,573	3,481
Total treated during 1946 ..	68	1,976	1,610	3,654
Discharged during 1946	10	1,808	1,556	3,374
Died during 1946	29	52	25	106
Total discharges and deaths ..	39	1,860	1,581	3,480
Remaining in Infirmary on 31st December, 1946	29	116	29	174

The Bishop Cowgill Annexe was closed and transferred to the Maternity and Child Welfare Department on January 15th, 1946. The 27 patients who remained there were transferred to 'C' Block, which was re-organised to admit only female cases. The result was that the number of male chronic patients which could be accommodated at St. Mary's Infirmary was reduced, but provision has been made for more admissions of this type of case at St. George's Infirmary.

The number of cases admitted to the chronic wards is approximately the same as the previous year while the number of cases admitted to the maternity wards has increased. There were 262 more live births than in 1945 and more patients than previously were treated in the ante-natal wards.

The type of work done in the Infirmary is shown in the following table :—

Chronic Medical Cases			Maternity Cases	
	Male	Female		
Admissions ..	44	55	Admissions ..	1,809
Discharges ..	10	12	Births ..	1,544
Deaths ..	29	50	Ante-Natal ..	358

The average number of patients in hospital at any one time during 1946 was 148. The highest number of beds occupied was 188 and the lowest 123.

Maternity Unit.—Ante-natal clinics have been held on four occasions each week and have been very well attended. There has been a considerable improvement in attendances at the post-natal clinic as a result of special efforts to interest the patients in this 'follow-up' service. The increase in the work of this Department is shown in the following table :—

	Ante-Natal Clinic		Post-Natal Clinic	
	1945	1946	1945	1946
Clinics held	125	206	39	46
No. of patients attended	1,313	2,746	157	598
No. of attendances	5,070	13,719	163	609

In spite of the increase in the number of deliveries and in the number of abnormal cases treated, there were 5 fewer stillbirths than during 1945. The abnormalities, stillbirths and causes of death in infants dying within 10 days of birth may be tabulated as follows :—

ABNORMALITIES :							
Born before Admission	..	..	..	..	..	..	29
Twins	..	..	..	..	..	..	27
Forceps deliveries	..	..	..	..	..	..	91
Stillbirths	..	..	..	..	..	..	44
Breech deliveries	..	..	..	..	..	..	10
Face deliveries	..	..	..	..	..	..	2
Transverse deliveries	..	..	..	..	..	..	3
Prolapsed Cord	..	..	..	..	..	..	1
Manual Removal of Placenta	..	..	..	..	..	..	12
Postpartum hæmorrhage	..	..	..	..	..	..	36
Antepartum hæmorrhage	..	..	..	..	..	..	7
Eclampsia	..	..	..	..	..	..	1
Maternal Deaths	..	..	..	..	..	..	2
STILLBIRTHS :							
Anencephaly	..	..	..	..	..	..	3
Spina Bifida	..	..	..	..	..	..	1
Hydrocephaly	..	..	..	..	..	..	2
Asphyxia Pallida	..	..	..	..	..	..	6
Toxaemia of Pregnancy	..	..	..	..	..	..	5
Accidental Hæmorrhage	..	..	..	..	..	..	3
Placenta Praevia	..	..	..	..	..	..	1
Prolapsed Cord	..	..	..	..	..	..	1
Difficult Breech	..	..	..	..	..	..	2
Hydrops Foetalis	..	..	..	..	..	..	1
Macerated Rh +	..	..	..	..	..	..	4
Macerated Rh -	..	..	..	..	..	..	11
Prematurity	..	..	..	..	..	..	4
							<hr/> 44 <hr/>
NEO-NATAL DEATHS :							
Prematurity	..	..	..	..	..	..	14
Atelectasis	..	..	..	..	..	..	1
Intracranial Hæmorrhage	..	..	..	..	..	..	4
Hæmorrhagic Disease	..	..	..	..	..	..	2
Congenital Heart Disease	..	..	..	..	..	..	2
Congenital Cystic Kidney	..	..	..	..	..	..	1
							<hr/> 24 <hr/>

The two maternal deaths from obstetric shock failed to respond to resuscitation measures and infusion therapy. One of the cases was complicated by massive collapse of the lungs.

Medical Staff.—The Junior Post was held by Dr. L. H. Moss until 24th April when he was followed by Dr. F. A. Lodge. Dr. Lodge left after six months and the position is now taken by Dr. Katherine A. McDonald. Dr. J. G. Hunt, who had been Senior Resident for 15 months left on 27th April and his place was taken by Dr. M. J. Twomey. It has been agreed to increase the establishment of Medical Staff to cope with the increasing numbers of abnormal cases by the establishment of an additional Senior and Junior Resident post, and it is anticipated that an additional consultant will also be appointed.

Nursing Staff.—The prevailing shortage of midwifery teachers has been felt, as it has been found impossible to engage a teacher throughout the whole year. In the meantime, the tutorial classes for the pupil midwives are carried out by the Matron, Assistant Matron and Doctors. The results of the examinations for Part 1 of the Central Midwives Board Certificate have been very gratifying. Out of 38 pupils who entered 35 passed. From October the hospital became recognised as a training school for Gas and Air Analgesia Certificate and all the midwives on the staff are now approved for the purposes of giving practical instruction to the pupil midwives in the use of this form of alleviation of pain during labour. There was a considerable reduction in the number of pupils applying for training during the summer months but this appears to have been a seasonal effect for which the cause is not obvious as the same decrease was experienced in previous years at this time.

Among the staff attending the chronic sick there has been a considerable decline in the number of Assistant Nurses. On the female side this has been compensated for to some extent by the employment of Ward Orderlies who take over a considerable part of the domestic work and also assist the nurses with the patients. All the work is supervised by fully qualified Sisters. The male patients are now nursed by male staff under the supervision of a Sister. Training obtained with the R.A.M.C. has proved of value to these Male Assistant Nurses now employed.

Structural Changes.—Shortage of labour and material has proved a great handicap in carrying out the alterations and renovations planned for the Administrative Block and Nurses' Home. Some alterations, however, have proceeded. Two old

staircases have been replaced with improved lavatory and bathroom accommodation for nursing and domestic staff. The large scheme for remodelling 'A' Block on the same lines as 'B' Block had to be deferred but alterations in 'A' Block were carried out to modernise it by the addition of babies' bathroom accommodation and the improvement of the annexes of the ante-natal wards on the ground floor. The accommodation for trained staff has been greatly improved by the purchase of "Highfield House," which stands on Greenhill Road, immediately opposite the hospital. This will be used as a Sisters' Home with accommodation for nine Sisters.

ST. GEORGE'S INFIRMARY.

The number of patients admitted to hospital in various classes is tabulated below :—

	Men		Women		Total	
	Chronic.	T.B.	Chronic.	T.B.	Chronic.	T.B.
Remaining in Infirmary 31st December, 1945 ..	32	28	177	27	209	55
Admitted during 1946 ..	67	67	72	76	139	143
Discharged during 1946 ..	17	73	18	61	35	134
Deaths during 1946 ..	37	13	58	16	95	29
Total Discharges and Deaths	54	86	76	77	130	163
Remaining in Infirmary 31st December, 1946 ..	45	9	173	26	218	35

Staffing difficulties on the nursing side have been very great during the year with the result that one of the wards for female chronic patients had to be closed for several months, though during this time necessary repairs to the ceiling were carried out, and new bedlights provided. It was arranged that there should be an increase in the number of male patients accommodated in the hospital as it was relatively easy to obtain Male Assistant Nurses. Now all the accommodation is occupied by patients.

There has been no change in the Medical Staff.

Some Occupational Therapy has been provided for the patients in the form of rug-making, needlework and, in the case of Tuberculous patients, toy-making.

Structural Alterations.—The new accommodation for Resident Maids has been completed and is occupied.

Plans have been passed and arrangements are now completed, apart from the provision of a building licence, for the alterations of Block 7, which will provide a home for Resident Pupil Assistant Nurses. Alterations have also been carried out in the old Nurses' Dining Hall to provide classroom and demonstration room accommodation and it is anticipated that it will be possible to commence teaching Pupil Assistant Nurses at an early date.

A canteen for non-resident domestic workers is in course of preparation by alterations to the sewing room stock-room.

The patients' accommodation has been materially improved by the demolition of the 10 foot walls which separated the wards and which were a relic of the former "workhouse" purpose of the building. It has been found possible, during the re-decoration of many of the wards, to cover over the brown tiles of former days with colours of brighter hue. These changes have been much appreciated by the patients.

COOKRIDGE HOSPITAL.

Staffing difficulties, owing to the shortage of Assistant Nurses, have limited the work of the hospital during the year. In May it was found necessary to close down 10 beds with the result that the number of admissions has been reduced. Later in the year it was decided to arrange for the admission of some long-term juvenile cases from St. James's Hospital. These children will benefit by the amenities of Cookridge Hospital and, at the same time, provide a source of variation and interest in the work of the nursing staff. It is also proposed to admit a few convalescent cases, each for a limited period, in order to procure an increase in the number of patients who can pass through some of the medical wards at St. James's Hospital. The admissions, discharges and deaths during the year are shown in the following table :—

Remaining in Hospital on 31st December, 1945	..	..	98
Admitted during 1946	..	..	38
Discharged during 1946	..	..	22
Deaths during 1946	..	..	31
Remaining in Hospital on 31st December, 1946	..	..	83
No. of children admitted during 1946	..	..	6

Tuberculosis.

The number of cases on the register at the end of 1946 was 4,076 as compared with 3,986 at the corresponding period of last year, an increase of 90.

Statistics.—*Notifications*—During the year 519 cases of pulmonary and 178 non-pulmonary tuberculosis were notified making a total of 697 cases of which 373 were males and 324 females. Compared with the previous year this is a decrease of 60 in the pulmonary and an increase of 22 in the non-pulmonary notifications, and compared with the average of the previous five years, there was a decrease of 89 pulmonary and an increase of 19 non-pulmonary. The case rate of pulmonary tuberculosis was 1·08, of non-pulmonary 0·37, and of all forms of the disease 1·45, as compared with 1·28, 0·35 and 1·63 respectively for the previous year.

Of the total cases of pulmonary tuberculosis notified 7·3 per cent. were children under 15 years, 24·1 per cent. persons between 15 and 25, and 68·6 per cent. were in the remaining age groups. The corresponding figures for the previous year were 6·6 per cent. 21·9 per cent. and 71·5 per cent. respectively.

As regards the non-pulmonary type of disease 50·0 per cent. were children under 15 years and 50·0 per cent. persons over 15 years. The corresponding figures for the previous year were 48·1 per cent. and 51·9 per cent. respectively.

Of the total cases notified 470 were by medical practitioners, 168 came from institutions and 59 were by transfer from other areas.

The number of cases of pulmonary tuberculosis not heard of until time of death was 15 and the number of non-pulmonary 9, making a total of 24 or 3·4 per cent. of the total notifications for the year. This is a decrease of 10 on the figure for the previous year.

Out of a total of 288 deaths from tuberculosis of all forms 36 or 12·5 per cent. were notified in the same year as death occurred, 7 or 2·4 per cent. in the same month and 40 or 13·9 per cent. in the same week. In the previous year there were 53 or 16·7 per cent. in the same year as death occurred, 10 or 3·1 per cent. in the same month and 36 or 11·3 per cent. in the same week.

Deaths.—The total deaths from tuberculosis of all forms during the year numbered 288 of which 180 were males and 108 females. Of the total pulmonary tuberculosis accounted for 261 or 90·6 per cent. and non-pulmonary 27 or 9·4 per cent. The death-rate from pulmonary tuberculosis was 0·54, from non-pulmonary 0·06, and from all forms of the disease 0·60, as compared with 0·63, 0·07 and 0·70 respectively for the previous year. These rates constitute a new low record for the City which considering the difficult conditions under which the people are living is a remarkable achievement.

Set against the average rates of the previous five years these figures represent a decrease of 0·14 in the pulmonary and 0·03 in the non-pulmonary rate, making a total decrease for all forms of the disease of 0·18.

Public Health Act, 1936, Section 172.—No action was necessary under this section during the year.

Notifications of tuberculosis received during the year.

PULMONARY.

Ages.	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total.
Males..	..	9 (1)	10	51 (5)	59 (11)	60 (5)	57 (2)	40	8	294 (24)
Females	..	4	15	74 (7)	68 (9)	28 (6)	21 (3)	11	4	225 (25)
Totals..	..	13 (1)	25	125 (12)	127 (20)	88 (11)	78 (5)	51	12	519 (119)

NON-PULMONARY.

Ages.	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total.
Males..	1	14	28	14 (1)	10 (3)	5	1	2	4	79 (4)
Females	..	15	31 (3)	26 (2)	13 (1)	5	6	3	..	99 (6)
Totals..	1	29	59 (3)	40 (3)	23 (4)	10	7	5	4	178 (10)

* Figures in brackets are 'Transfer In' cases and are included in the totals.

PULMONARY TUBERCULOSIS.

AGES AT DEATH.

1946.	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 +	Total
Males ..	..	1	1	8	28	27	43	43	16	167
Females	1	..	1	28	24	21	9	5	5	94
TOTALS	1	1	2	36	52	48	52	48	21	261
Average 10 years 1936-1945	1	2	3	54	69	66	68	53	20	337

NON-PULMONARY TUBERCULOSIS. DEATHS.

1946.	Tubercular meningitis.	Abdomin- al.	Bones and Joints.	Other tuber- culosis.	Total.
Males ..	9	1	..	3	13
Females ..	7	3	..	4	14
Totals ..	16	4	..	7	27

AGES AT DEATH.

1946	-1	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65+	Total
Males ..	2	4	2	2	..	2	..	1	..	13
Females	..	4	2	3	1	2	..	1	1	14
Totals ..	2	8	4	5	1	4	..	2	1	27
Average 10 years 1936-1945	3	13	9	8	5	4	4	2	2	50

TUBERCULOSIS.

YEAR.	DEATHS.						NOTIFICATIONS.					
	Pulmonary tuberculosis.		Non-pulmonary tuberculosis.		All forms tuberculosis.		Pulmonary tuberculosis.		Non-pulmonary tuberculosis.		All forms tuberculosis.	
	Deaths.	Death-rate.	Deaths.	Death-rate.	Deaths.	Death-rate.	Cases.	Case-rate.	Cases.	Case-rate.	Cases.	Case-rate.
1935	358	0.73	77	0.16	435	0.89	569	1.17	141	0.29	710	1.46
1936	346	0.71	62	0.13	408	0.83	531	1.08	163	0.33	694	1.42
1937	354	0.72	52	0.11	406	0.83	548	1.11	214	0.44	762	1.55
1938	336	0.68	61	0.12	397	0.80	511	1.03	176	0.36	687	1.39
1939	353	0.72	60	0.12	413	0.85	555	1.14	137	0.28	692	1.42
1940	416	0.89	51	0.11	467	1.00	557	1.20	110	0.24	667	1.43
1941	362	0.77	46	0.10	408	0.86	598	1.27	162	0.34	760	1.61
1942	310	0.67	47	0.10	357	0.77	638	1.38	170	0.37	808	1.75
1943	325	0.72	53	0.12	378	0.83	595	1.31	151	0.33	746	1.64
1944	277	0.61	39	0.09	316	0.70	631	1.40	157	0.35	788	1.75
1945	286	0.63	32	0.07	318	0.70	579	1.28	156	0.35	735	1.63
1946	261	0.54	27	0.06	288	0.60	519	1.08	178	0.37	697	1.45

THE HEALTH CLINIC AND SANATORIA

BY

FRANK RIDEHALGH, M.A., M.B. (Cantab.), M.R.C.P.(Lond.),
Chief Clinical Tuberculosis Officer.

General.—Statistics for 1946 show a further decline in tuberculosis. The figure of 288 deaths is a new low record. Notifications have fallen to 697, the lowest figure since 1940. Pulmonary deaths for the five-year period 1942-46 were 1,459, a reduction of 23 per cent. below those for 1932-36. Non-pulmonary deaths for 1942-46 were 198, or 51 per cent. below 1932-36. Comparing the same five-year periods, pulmonary notifications show an increase of 1.3 per cent. and non-pulmonary notifications an increase of 2.9 per cent., whilst the number of patients referred to the Clinic for diagnosis has more than doubled. Thus, although the opportunities to discover cases of tuberculosis are much increased, and in spite of great technical improvements in the means of diagnosis, the number of new cases occurring shows an insignificant rise, whereas the patient's chance of survival has markedly improved.

The battle is neither won nor ended. Tuberculosis remains the principal killing and disabling disease of the most productive years of life. In women, the peak of incidence and mortality remains sharply demarcated at ages 15-25. In men, the age incidence is shifting. The young adult peak has gone; incidence and mortality are spread out between 25 and 65 with the preponderance in the later years.

Health Clinic.—A summary of the work done is given in the sub-joined table, with the corresponding figures for 1945 and 1938 shown for comparison.

SUMMARY OF WORK OF HEALTH CLINIC

	1946	1945	1938
Examinations and consultations	10,566	9,481	7,220
Contact examination	1,660	1,475	963
X-ray films	7,684	6,469	2,206
X-ray screenings	9,859	7,727	1,500
Home visits by Doctors	1,067	956	830
Home visits by Health Visitors	9,726	9,646	13,420
Pneumothorax refills and inductions ..	4,922	4,631	1,283
Other special treatments	874	1,054	1,739
Ultra-violet light treatments	7,010	7,251	4,463

The decline in "other special treatments" is due to the virtual disappearance of "Gold Therapy." The field work of the Health Visitors, whilst rather more than in 1945, is considerably less than before the war. The average number of Health Visitors working during 1946 was seven, out of the normal establishment of eleven. They have maintained the essential home visits and dealt with a vast increase of work within the Clinic. They deserve high praise for their devotion and for the courtesy and kindness they show to patients.

Thoracic Surgery.—The Clinic is used more and more as a chest diagnostic centre. The help of the thoracic surgeon in diagnosis becomes increasingly important. Collapse therapy involves his collaboration at all stages. The establishment of regular consultative sessions at the Clinic and sanatoria between the clinical tuberculosis team and Mr. Phillip Allison has proved most valuable. Details of Mr. Allison's work are given in the attached table. Mr. P. J. Moir has continued to be responsible for the chest surgery at Middleton and Scotton Banks Sanatoria.

OPERATIVE TREATMENTS AND CONSULTATIONS BY MR. P. ALLISON

Year	Extra Pleural	Cavity Drainage or Empyema	Thoracoplasty		Adhesiotomy	Bronchoscopy	Phrenic A.P., P.P., Skin Graft	Total Consultations
			Patients	Stages				
1943	..	1	3	3	13	43	25	145
1944	1	1	14*	23	19	48†	6	189
1945	1	..	21	42	44	20	4	178
1946	2	3 patients 4 stages	14*	27	64	13	9	323

* Includes one operative treatment in Leeds General Infirmary (privately).

† Includes one Lobectomy.

Institutions.—*Killingbeck Sanatorium.*—Following the return of Seacroft to its proper function as an Infectious Diseases Hospital, it became possible to start admitting tuberculous patients to Killingbeck in the late summer of 1946. Dr. A. A. Driver acted as Medical Superintendent and is to be congratulated on his skilled handling of a difficult transition period. With the return of Dr. W. Santon Gilmour the tuberculosis team is vastly strengthened and we welcome him back from his travels.

The 'male' waiting list is falling steadily as more male nurses become available, and more 'male' wards are re-opened. On the other hand, only 40 'female' beds are available owing to shortage of nurses. The 'female' waiting list approaches 100 and there is at least five months' delay before admission.

Killingbeck is to have a four-valve X-ray Unit fitted with both rotating and fixed-anode tubes and equipped for tomography. The X-ray Department has been re-modelled. Plans for a theatre block for thoracic surgery and for a dental surgery await the approval of the Ministry of Health. An Occupational Therapy Department is being equipped with the help of the Association for the Care of Consumptives, and a full-time instructor is to be appointed, whose activities will also extend to Gateforth. Laboratory facilities are to be improved and a technician appointed.

Gateforth Sanatorium.—The first section of the new pavilions, and the new Nurses' Home, were opened in April by the Lord Mayor, Alderman David Beevers. The ferro-concrete unit method of construction adopted for the extension has produced a most pleasant and useful building and increases the complement of beds in the Sanatorium to 101. The conversion of an outhouse used formerly as stables into two attractive cottages will provide extra accommodation for staff. A chef will occupy one of the cottages and overcome a long-standing domestic difficulty which greatly reduced available beds in the early months of the year. A demonstration room is being equipped for the instruction of nurses. Regular lectures have been started and application is to be made for recognition as a teaching school for the Certificate of the Tuberculosis Association.

Other Institutions.—Owing to shortage of nurses, the beds for women at "The Hollies" Sanatorium have now been reduced to fifteen.

At St. George's Infirmary, one 'male' ward has been released for chronic sick, and we hope to release another early in 1947.

The Children's Sanatorium School remains at Meanwood until it is possible to transfer the women patients from "The Hollies" to Killingbeck.

The West Riding County Council ceased to admit further Leeds patients to Middleton and Scotton Banks in the late Summer.

Orthopædic cases in adults still go mainly to Oswestry and children to Thorp Arch, which has a long waiting list. Other special hospitals such as Papworth; Lord Mayor Treloar (Alton) for orthopædic children; St. Michael's (Hayle, Cornwall) for uro-genital tuberculosis; are used occasionally, as required.

Dental.—This work has increased. An Assistant Dental Officer is to be appointed. It is hoped shortly to secure the services of a dental attendant, thereby releasing a Health Visitor for her proper duty. The following table shows details of the work done by the Dental Officer, Mr. Hilton :—

SUMMARY OF DENTAL TREATMENT GIVEN DURING 1946

	Health Clinic	St. George's Infirmary	Gate- forth	The Hollies	Mean- wood	Killing- beck	Home Visits	Total
Cases { Examined ..	125	21	20	18	65	12	1	262
{ Treated ..	120	21	20	18	26	12	1	218
Attendances	568	109	114	81	83	44	1	1,005
Extractions :—								
Local anæsthetic ..	277	104	81	68	..	47	1	578
N ₂ O	26	..	..	..	56	..	..	82
Fillings	60	16	16	19	1	..	..	112
Scalings	27	..	12	5	1	1	..	46
Polish	18	1	4	7	..	..	..	30
Dentures :—								
Number completed ..	66	19	14	10	..	..	..	109
Patients fitted ..	34	11	8	5	..	..	..	58
Repairs, etc.	6	3	1	..	..	..	..	10
Other Treatments ..	64	14	16	7	..	11	..	112

Social Welfare of the Tuberculous.—Treatment allowances totalling £21,393 12s. 11d. were paid to 693 patients during 1946.

The Allowances Appeals Committee has met monthly to deal with special cases under this head.

Association for the Care of Consumptives.—The Care Committee has continued its most useful voluntary work and met weekly throughout the year. The sum of £1,425 9s. 10d. from the Association's funds was spent in helping tuberculous families. The following cases were helped during 1946 :—

Groceries	278
Clothing	201
Beds and Bedding	147
Sickroom requisites	23
Fares	19
Convalescence	12
Home Help	4
Miscellaneous	75

In addition, free milk was supplied to 777, surgical appliances to 41, and dentures to 44 patients.

The Association also helped in many other ways, notably by the provision of machinery, tools and equipment for the Killingbeck Occupational Therapy Centre.

Rehabilitation.—Every effort is made to implement the Disabled Persons' Employment Act and to secure its full benefits to tuberculous patients. Registration is encouraged. The fullest possible details are supplied to the Resettlement Officers of the Ministry of Labour. Arrangements are in hand to secure a closer personal link between them and the doctors working both in the Clinic and in the Sanatoria. Perhaps the most important development is that the Disabled Persons' Employment Corporation has agreed to provide a new and specially planned factory on a selected site within the precincts of Killingbeck, which will employ only tuberculous patients (under continuous medical control from Killingbeck) in a wide range of suitable light trades. This is no new idea to Leeds, and the "Factory in the Field" has done valuable work of this kind for many years. There is reason to hope that the new scheme will overcome the defects of the old.

Housing.—This remains a serious problem. Only 56 families were re-housed as compared with 96 in 1945. The waiting list increased by 111 to 257. The design of houses has considerably improved, and for this reason special "Sunshine" houses will not be erected in future. "Recovered" cases, and the families of those who die, will not be required to leave their "Sunshine" houses for this reason alone.

Discussion.—The past year may be regarded with some satisfaction as one of solid progress in the integration of the three lines of attack on tuberculosis—medical, preventive and social. It may be said with some confidence that the existing facilities are being fully used. Two features of the work, however, call for the closest attention.

The first is the gross overloading of the premises and staff of the Health Clinic. Practically every section of the work shows a vast increase, varying from two-fold to six-fold since 1938. The establishment has been increased by one Assistant Tuberculosis Officer. The care of patients at "The Hollies" and St. George's Infirmary takes more than half the additional medical man-power. The bare figures give no indication of the greatly increased administrative duties which result from the work of the Mass Radiography Unit and from the progress in social welfare, notably the Allowances Scheme and the operation of the Disabled Persons' Employment Act. The official working time of the doctors is fully occupied with actual clinical sessions. Administration and X-ray reading (a vast task in itself) have necessarily to be done "out of hours." Health Visitors are below establishment. Increase in the establishment of clerical staff has not kept pace with the increasing office work. Moreover, the Clinic cannot house more doctors. Dressing-room accommodation is inadequate and barely decent. There is no space for an increase in clinical sessions. These are overloaded and patients cannot be given the individual attention they need. Whatever authority controls the work in future, the problem of additional staff and bigger premises must be faced now, for it is certain that 1947 will show a further increase.

An equally disquieting feature is the acute shortage of nurses for female patients. Efforts at early diagnosis are stultified and women are dying every week from tuberculosis whose lives might have been prolonged or saved. Since sanatorium nursing has ceased to attract candidates, then it must be made attractive by every possible means. It is useless to wait impotently for action from above, as in the matter of nurses' salaries. Where national action is lacking, local initiative must take its place. In dealing with this insidious and deadly infection, the public, as well as the Local Authority, has a responsibility, and it is to see that trained personnel adequate to staff the sanatoria is provided so that no sufferer has to wait unduly long for or is denied the succour he or she needs.

SUMMARY OF QUARTERLY RETURNS MADE TO MINISTRY OF HEALTH ON FORM T.145 (1946).

DIAGNOSIS.	PULMONARY.				NON-PULMONARY.				TOTAL.				GRAND TOTAL.			
	Adults.		Children.		Adults.		Children.		Adults.		Children.					
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.				
A.—Number of definite cases of Tuberculosis on the Dispensary Register at the beginning of the year	1,355	1,038	194	208	197	242	220	210	1,552	1,280	414	418	3,664			
Inward Transfers ..	37	38	3	..	4	3	..	4	41	41	3	4	85			
L.S.O. Cases Returned ..	12	8	2	1	1	..	..	..	13	8	2	1	24
B.—Number of New Cases diagnosed as Tuberculosis during the year ..	140	115	15	19	..	..	..	..	262	217	48	54	581
(1) Class T.B. minus ..	98	59	..	1	..	..	..	..				
(2) Class T.B. plus ..	..	..	..	..	24	43	33	34					
(3) Non-Pulmonary ..	..	..	..	..	..	..	..	..
C.—Number of cases included in A. and B. written off the Dispensary Register during the year as :—																
(1) Recovered	45	23	15	13	6	16	14	15	51	39	29	28	147			
(2) Dead (all causes) ..	140	87	2	3	1	3	..	2	141	90	2	5	238			
(3) Removed to other Areas	37	40	3	1	6	12	4	2	43	52	7	3	105			
(4) For other reasons ..	46	47	4	1	5	5	4	5	51	52	8	6	117			
Transfers to Pulm. from N.P.	2	3	..	..	2	3	..	..	..	..	..	..	..
D.—Number of definite cases of Tuberculosis on the Dispensary Register at the end of the year :	1,376	1,064	190	211	206	249	231	224	1,582	1,313	421	435	3,751			

PATIENTS (EXCLUDING CONTACTS) FIRST EXAMINED AT CITY OF LEEDS HEALTH CLINIC
FROM JANUARY 1st, TO DECEMBER 31st, 1946.
PULMONARY TUBERCULOSIS.

New patients.				Number bacteriologically positive.				Number clinically positive, but not T.B. +.				Number found to be Non-tubercular, lost sight of, etc.				Still under observation.			
M.	F.	B.	G.	M.	F.	B.	G.	M.	F.	B.	G.	M.	F.	B.	G.	M.	F.	B.	G.
1,202	997	136	119	126	63	..	1	90	81	6	5	732	98	92	21	157	121	32	21

OTHER FORMS OF TUBERCULOSIS.											
New patients.				Bones and Joints.				Abdominal			
M.	F.	B.	G.	M.	F.	B.	G.	M.	F.	B.	G.
23	41	27	30	6	8	6	5	2	9	5	4

New patients.				Bones and Joints.				Abdominal				Other Organs.				Glands.			
M.	F.	B.	G.	M.	F.	B.	G.	M.	F.	B.	G.	M.	F.	B.	G.	M.	F.	B.	G.
23	41	27	30	6	8	6	5	2	9	5	4	6	10	2	2	9	14	14	19

Total attendances at Health Clinic for—

(a) Light treatment ..	7,010
(b) Other special treatments ..	5,492
(c) Review examinations ..	10,193
(d) X-ray ..	1,706
	<u>24,401</u>

Total Number of Clinical Examinations

(included in attendances) ..	10,551
Number of cases making the clinical attendances (excluding Light and Special treatments)	6,433

Observation cases of previous years re-examined as follows:—

Definitely diagnosed as tubercular ..	34
Marked off as non-tubercular, and for other reasons ..	222
Remaining under observation ..	69
	<u>325</u>

**"CONTACTS" FIRST EXAMINED AT THE HEALTH CLINIC
FROM JANUARY 1st TO DECEMBER 31st, 1946.**

	New Contacts Examined	Found Sputum T.B.+	Clinically definite, but sputum negative.	Diagnosed Non- Pulmonary Tubercle.	Found to be Non- Tubercular, lost sight of, etc.	Remaining under observa- tion.
Males	147	2	3	..	137	5
Females	384	9	8	..	349	18
Boys	214	2	2	1	162	47
Girls	182	2	4	2	147	27
Total	927	15	17	3	795	97

Cases remaining under observation on December 31st, 1945, were re-examined, with the following results:—

Definitely diagnosed as tubercular	19
Marked off as non-tubercular, died, lost sight of, etc.	48
Remaining under observation	8
	75

Total examinations made = 1,660 (1,448 cases).

Mass Radiography(*Report of Dr. J. A. Aspin*).—Dr. Magan left us in April to take up similar work in Dublin. Dr. Guthrie took charge of the Unit until September, when Dr. J. A. Aspin, M.D. (Cantab.), D.M.R.D., took up the appointment.

Scope of Operation.—During 1946, after an initial two months' survey in Leeds, the Unit has operated in many widely separated parts of Yorkshire. The equipment has been dismantled and re-erected no less than 21 times, and has been transported more than 442 miles, in the course of the year. Many working days have been lost by these frequent moves, and although much overtime has been worked by members of the team, time taken up by travelling to the remoter places has also materially reduced that available for actual work.

In spite of these handicaps, the Service has dealt with 45,378 persons in 1946. It is believed that this figure is materially greater than the total dealt with by any similar Unit which has travelled extensively during the year.

Clinical Investigation.—The service could be criticized severely if it had merely attempted to X-ray a record number of people, without making proper arrangements to handle the cases whose miniature films were found to be abnormal.

Full-sized films were taken of these suspects, and after an interview with the Assistant Medical Director, those who were thought to be in need of further investigation or treatment were referred to their private doctors and to the appropriate specialists.

The Service worked throughout in the closest co-operation with the local Tuberculosis Officers, to whom suspected cases of tuberculosis were referred for observation or treatment.

A summary of this work is presented below in tabular form. The bulk of the cases of non-tuberculous disease were suffering from heart trouble, but cases of industrial disease were found among colliers, stonemasons, foundrymen, fitters, boiler-finishers, and graphite workers. A few cases of lung cancer were discovered.

SUMMARY OF WORK OF MASS RADIOGRAPHY UNIT, 1946.

	No. of persons examined	Subsequent examinations on large films	Cases of Tuberculosis referred to Dispensaries or Doctors :—		Non-tuberculous Disease Cases referred to Doctor
			For Observation	For Treatment	
Leeds Cases ..	8,161	699 (8·57%)	106 (1·30%)	5 (0·06%)	29 (0·36%)
Out-of-City Cases ..	37,217	2,850 (7·66%)	343 (0·92%)	83 (0·22%)	334 (0·90%)
Total ..	45,378	3,549 (7·82%)	499 (1·10%)	88 (0·19%)	363 (0·80%)
1945 Total ..	42,163	2,879 (6·83%)	356 (0·84%)	66 (0·16%)	366 (0·87%)

Follow-Up of Work done in 1944, 1945 and 1946.—The following report is based upon a study of all cases of suspected tuberculosis referred to the City of Leeds Health Clinic by the Mass Radiography Service in 1944, 1945 and 1946. It is felt that this account shows the real value of Mass Radiography to the individual and to the community.

Amount of Tuberculosis found.—During this period, the Mass Radiography Service X-rayed 40,753 persons (20,040 males, 20,713 females) in Leeds alone.

The Assistant Medical Director's preliminary investigations revealed that 352 of these (8·6 per 1,000) could be suspected of suffering from pulmonary tuberculosis.

These cases were all referred to the City of Leeds Health Clinic, where, after further investigation and observation (lasting in the average case for eight months) it was decided that 229 had no serious trouble. A further 29 cases are still under investigation.

The remaining 99 persons (2.4 per 1,000) have now been notified by the Chief Clinical Tuberculosis Officer as new cases of pulmonary tuberculosis, and so far 39 of these cases have proved to be infectious. Thus one per 1,000 of those originally X-rayed has proved to be a previously unsuspected source of infection to his family and to his work-mates.

Type of Disease Discovered.—Nearly half the cases (46 out of 99) were of a "minimal" type where the disease had not spread far. It should be relatively easy to restore these persons to normal health. Some of the remaining cases were of advanced disease, with several cavities in their lungs, and in all nine cases died during the period in question.

Sanatorium Treatment.—Although barely a year has elapsed since some of the 1946 cases were X-rayed, it can be stated that 31 (nearly a third) of the whole group have already been sent away to sanatoria; seven more have, for the present, refused to go away or have left a sanatorium after a few days' stay. Pneumothorax therapy has been carried out in nine cases, and five patients have been subjected to thoracoplasty. Quite apart from the general benefits which these 31 patients have derived from their sanatorium treatment, it appears that six of their number have already been made non-infectious. Also one of these, and five others, have returned to work after their discharge from sanatorium. Continued collapse therapy may still lead to the sputum-conversion of others, and further patients are still awaiting admission.

If the diagnosis of these patients had been delayed until they felt ill enough to go to their doctors, it is doubted whether even the energetic treatment they have received would have had such promising results.

Observation and Treatment at Home.—Of the newly notified cases, 68 have not so far been admitted to sanatorium.

In 40 of these, the disease appears to be quiescent and there is no need for more than general advice and regular supervision at the Clinic.

In six other cases, there has been very slight evidence of activity, but this new disease has been kept fully in check by periods of rest in bed at home. These cases are under constant supervision.

Cases treated at home include three with advanced disease, unsuitable for sanatorium treatment, eight with a tendency to bronchitis and four, who for personal reasons preferred to remain at home, a total of 15.

The remaining seven cases (from the total of 68 in this group) have either removed into another area, or have refused to co-operate with the Clinic.

Details of Individual Surveys.—The following report gives particulars of the areas visited. Many extremely successful public sessions were held during the year.

"The Mass Radiography Unit worked in Leeds for two months, in Bradford for two months, in Hull for two months, in the West Riding Area for two months, in the North Riding Area for $1\frac{1}{2}$ months, in Huddersfield for one month and in Wakefield for one month.

The appended table shows the numbers examined in the various areas.

Area	No. of persons examined	Remarks
Leeds.. ..	8,161	General public. Industrial workers.
Bradford ..	7,805	General public. Industrial workers. Corporation staffs. Military.
Hull	10,732	General public. Industrial workers. Corporation staffs. Students.
West Riding..	3,175	Colliery workers.
Batley ..	1,623	Industrial workers. Corporation staffs.
Otley ..	1,481	General public. Industrial workers. Corporation staffs.
North Riding	4,029	Industrial workers. Corporation staffs. Retail stores staffs.
Huddersfield	4,697	Industrial workers. Corporation staffs. General public.
Wakefield ..	3,775	Industrial workers. Corporation and County Council staffs.

The colliery examinations were pioneer surveys made specially at the request of the West Riding Authorities and unusual difficulties had to be overcome. These difficulties were:—

- (i) The extreme conservatism of the miners.
- (ii) Shift working, which called for sessions at very awkward hours, and
- (iii) The transport of the team daily to and from out-of-the-way places.

The experience gained in these surveys, however, enabled the Unit to advise another Unit on how to conduct an X-ray survey in colliery districts. Statistics were given to the Ministry of Fuel and Power and were said to be most valuable.

Public sessions given in Leeds, Bradford, Otley, Hull and Huddersfield were very popular and volunteers had to be turned away in Bradford, Hull and Huddersfield.

In Hull, 1,117 women were examined in one day. This is believed to be the highest figure for examinations in one day attained by a civilian unit in Britain.

Exhibitions of mass radiography photographs were displayed in Bradford, Hull and Huddersfield and appeared to be of great interest to the general public.

A talk on Mass Radiography given by the Organising Secretary was included in the programme broadcast by the B.B.C. on October 2nd, 1946.

Maternity and Child Welfare.

The most notable achievement in the department of Maternity and Child Welfare was a further reduction in the Maternal Mortality Rate. The rate for the year, which is the lowest ever recorded in the City, was 1.18 per thousand total (live and still) births as compared with 1.75 for the previous year and an average of 2.05 for the previous five years.

Another achievement was the reduction of the infant mortality rate to 41, the lowest recorded since 1943 when the rate was 47 and at that time the lowest on record.

INFANT MORTALITY.

Year.	Deaths under one year.	RATE PER 1,000 BIRTHS.	
		LEEDS.	England and Wales.
1890-1894	10,945	176	149
1895-1899	11,552	181	158
1900-1904	11,138	172	143
1905-1909	8,249	139	121
1910-1914	6,969	131	109
1915-1919	5,375	129	97
1920	1,232	110	80
1921	997	98	83
1922	935	101	77
1923	773	89	69
1924	921	108	75
1925	748	91	75
1926	748	93	70
1927	629	81	70
1928	606	79	65
1929	722	97	74
1930	512	68	60
1931	552	76	66
1932	617	88	65
1933	537	81	64
1934	513	71	59
1935	463	64	57
1936	476	65	59
1937	491	67	58
1938	490	64	53
1939	401	57	50
1940	395	57	55
1941	407	61	59
1942	369	51	49
1943	356	47	49
1944	429	50	46
1945	438	56	46
1946	401	41	43

Statistics.—The number of children under one year of age who died in 1946 was 401 (males 233, females 168) as compared with 438 (males 258, females 180) in 1945. The infant mortality rate was 41 as compared with 56 for the previous year and an average of 53 for the previous five years.

The rate for England and Wales was 43 or 4.65 per cent. greater than the rate for Leeds, and the rate of the 126 great towns was 46 or 10.87 per cent. greater.

Causes of Death.—The principal causes of death of infants under one year of age during the year in order of numerical importance were premature birth 105 (26.2 per cent.) pneumonia 76 (19.0 per cent.) and diarrhoea and enteritis 52 (13.0 per cent.). The respiratory group of diseases—pneumonia, bronchitis, whooping cough and influenza—was responsible for 96 or 23.9 per cent. of the total deaths under one year of age. Last year the number was 100 or 22.8 per cent. and the average for the previous five years 101 or 25.2 per cent.

Prematurity still remains the most important single cause of death, the deaths attributable to this cause being 105 or 26.2 per cent. of the total as compared with 87 or 19.9 per cent. for the previous year. The death-rate from prematurity per thousand births was 10.6 as compared with 11.2 for the previous year.

The following table shows the number of deaths from prematurity, and the death-rate per thousand births for the years 1931-1946 :—

Year.	Births.	Deaths from prematurity.	Death-rate per 1,000 births.
1931	7,219	114	15.8
1932	7,004	128	18.3
1933	6,643	134	20.2
1934	7,190	121	16.8
1935	7,211	124	17.2
1936	7,340	114	15.5
1937	7,279	120	16.5
1938	7,614	136	17.9
1939	7,079	102	14.4
1940	6,946	97	14.0
1941	6,667	83	12.4
1942	7,204	91	12.6
1943	7,547	91	12.1
1944	8,518	119	14.0
1945	7,760	87	11.2
1946	9,886	105	10.6

The average death-rate from prematurity per thousand births for the ten years 1936-1945 was 14.1.

Deaths in Age Groups.—Of the total (401) infant deaths 83 or 20.7 per cent. took place on the first day ; 174 or 43.4 per cent. in the first week ; 235 or 58.6 per cent. in the first month, 79 or 19.7 per cent. between one and three months ; 41 or 10.2 per cent. between three and six months ; 25 or 6.2 per cent. between six and nine months ; and 21 or 5.2 per cent. between nine and twelve months.

The percentage changes in the infant death-rates per thousand births in 1946 as compared with the previous ten years are as follows :—

Under 1 week decrease	17.4%	3-6 months, decrease	52.9%
Under 1 month ,,	21.8%	6-9 ,, ,,	56.9%
1-3 months ,,	17.3%	9-12 ,, ,,	46.2%
Whole year decrease, 29.7%			

Neo-Natal Death Rate.—The number of deaths of infants occurring in the first month of life was 235 or 13 more than in the previous year and the neo-natal rate was 23.8 as compared with 28.6 in 1945. The downward trend in this rate has been continued. (Vide table on page 99).

Of the total deaths under one year 58.6 per cent. occurred in the first month as compared with 50.7 per cent. for the previous year, and of the deaths in the first month 35.3 per cent. occurred on the first day, 74.0 per cent. in the first week and 88.9 per cent. in the first two weeks.

The deaths in the first month were largely due to prematurity.

The neo-natal rate for the year (23.8) compares favourably with the average rate for the previous ten years (29.4).

Stillbirths.—Details are given on page 23 of stillbirths and the stillbirth rate.

Illegitimate Death-Rate.—Of the 764 illegitimate births 39 or 5.1 per cent. died before reaching the age of one year which is equal to an infant mortality rate of 51. The corresponding rate for 1945 was 78 and for 1944 73.

Maternal Mortality.—The number of mothers who lost their lives in childbirth during the year was 12, a decrease of two as compared with the figure for the previous year. The corresponding maternal mortality rate per thousand live births was 1.21 as compared with 1.80 for the previous year and an average of 2.12 for the previous five years. Calculated on the total number of births (live and still) the rate for the year was 1.18 as compared with 1.75 for the previous year and an average of 2.05 for the previous five years.

DEATHS FROM STATED CAUSES UNDER ONE YEAR OF AGE.

Causes of death	Year 1945	Year 1946	Increase or decrease	Percentage total deaths under one
Smallpox .. ..	..	..	..	..
Chickenpox .. ..	..	..	..	..
Measles	13	..	-13	..
Scarlet Fever .. ..	..	..	..	..
Whooping Cough	6	9	+3	2.24
Diphtheria .. ..	..	1	+1	0.25
Influenza .. ..	..	2	+2	0.50
Erysipelas .. ..	..	..	..	..
Tuberculous Diseases	2	3	+1	0.75
Meningitis	5	4	-1	1.00
Convulsions	15	5	-10	1.25
Bronchitis	10	6	-4	1.50
Pneumonia (all forms)	84	76	-8	18.95
Other diseases of Respiratory Organs .. ..	..	3	+3	0.75
Diarrhœa and Enteritis	84	52	-32	12.97
Gastritis	2	..	-2	..
Syphilis	1	..	-1	..
Rickets	1	..	-1	..
Suffocation, including overlying	18	20	+2	4.99
Injury at birth	16	17	+1	4.24
Atelectasis	27	36	+9	8.98
Congenital Malformations	37	36	-1	8.98
Premature birth	87	105	+18	26.18
Atrophy, Debility, and Marasmus	10	6	-4	1.50
Other Causes	20	20	..	4.99
Totals	438	401	-37	..

INFANTILE MORTALITY DURING THE FOURTEEN YEARS 1933-1946 AT DIFFERENT PERIODS OF
THE FIRST YEAR OF LIFE.

YEAR.	Births in year.	Under one week.		Under one month.		One and under three months.		Three and under six months.		Six and under nine months.		Nine and under twelve months.		Under one year.	
		Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.	Deaths.	Rate.
1933	..	175	26.3	243	36.6	99	14.9	80	12.0	57	8.6	58	8.7	537	81
1934	..	185	25.7	252	35.0	85	11.8	55	7.6	69	9.6	52	7.2	513	71
1935	..	182	25.2	239	33.1	88	12.2	62	8.6	41	5.7	33	4.6	463	64
1936	..	166	22.6	220	30.0	70	9.5	87	11.9	54	7.4	45	6.1	476	65
1937	..	186	25.6	242	33.2	84	11.5	80	11.0	48	6.6	37	5.1	491	67
1938	..	170	22.3	252	33.1	75	9.9	69	9.1	55	7.2	39	5.1	490	64
1939	..	149	21.0	214	30.2	66	9.3	50	7.1	44	6.2	27	3.8	401	57
1940	..	157	22.6	214	30.8	70	10.1	48	6.9	39	5.6	24	3.5	395	57
1941	..	123	18.4	178	26.7	69	10.3	75	11.2	41	6.1	44	6.6	407	61
1942	..	154	21.4	214	29.7	58	8.1	49	6.8	31	4.3	17	2.4	369	51
1943	..	139	18.4	179	23.7	58	7.7	62	8.2	43	5.7	14	1.9	356	47
1944	..	177	20.8	242	28.4	75	8.8	55	6.5	42	4.9	15	1.8	429	50
1945	..	151	19.5	222	28.6	93	12.0	65	8.4	34	4.4	24	3.1	438	56
1946	..	174	17.6	235	23.8	79	8.0	41	4.1	25	2.5	21	2.1	401	41

PERCENTAGE CHANGES (5 YEAR PERIODS, ALSO YEARS 1945 AND 1946) IN THE INFANT DEATH-RATE
per 1,000 BIRTHS AS COMPARED WITH THE AVERAGE OF THE FIVE YEARS 1905-1909.

Five year period	Under one week		Under one month		One and under three months		Three and under six months		Six and under nine months		Nine and under 12 months		Under one year	
	Rate	Percentage increase or decrease over 5 years period 1905-1909	Rate	Percentage increase or decrease over 5 years period 1905-1909	Rate	Percentage increase or decrease over 5 years period 1905-1909	Rate	Percentage increase or decrease over 5 years period 1905-1909	Rate	Percentage increase or decrease over 5 years period 1905-1909	Rate	Percentage increase or decrease over 5 years period 1905-1909	Rate	Percentage increase or decrease over 5 years period 1905-1909
1905- 1909	26.2	—	44.3	—	25.5	—	28.0	—	23.0	—	18.6	—	139	—
1910- 1914	26.6	+1.5%	44.1	-0.5%	24.7	-3.1%	23.9	-14.6%	20.1	-12.6%	18.0	-3.2%	131	-5.8%
1915- 1919	26.4	+0.8%	44.4	+0.2%	21.5	-15.7%	25.0	-10.7%	19.7	-14.3%	17.9	-3.8%	129	-7.2%
1920- 1924	23.8	-9.2%	42.3	-4.5%	17.9	-29.8%	16.1	-42.5%	13.2	-42.6%	11.6	-37.6%	101	-27.3%
1925- 1929	24.3	-7.3%	38.2	-13.8%	15.1	-40.8%	13.4	-52.1%	11.5	-50.0%	10.1	-45.7%	88	-36.7%
1930- 1934	26.1	-0.4%	35.8	-19.2%	12.9	-49.4%	10.6	-62.1%	9.5	-58.7%	7.8	-58.1%	77	-44.6%
1935- 1939	23.3	-11.1%	31.9	-28.0%	10.5	-58.4%	9.5	-66.1%	6.6	-71.3%	4.9	-73.7%	63	-54.7%
1940- 1944	20.3	-22.5%	27.9	-37.0%	9.0	-64.7%	7.9	-71.8%	5.3	-77.0%	3.2	-82.8%	53	-61.9%
Year 1945	19.5	-25.6%	28.6	-35.4%	12.0	-52.9%	8.4	-70.0%	4.4	-80.9%	3.1	-83.3%	56	-59.7%
Year 1946	17.6	-32.8%	23.8	-46.3%	8.0	-68.6%	4.1	-85.4%	2.5	-89.1%	2.1	-88.7%	41	-70.5%

MATERNITY AND CHILD WELFARE SERVICES INCLUDING SUPERVISION OF MIDWIVES

BY

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Number of Midwives.—The total number of midwives on the register on 31st December, 1945, was 119. During the year 50 new names were added, one midwife retired, 5 left the district and 36 failed to notify, leaving a total of 127 on the register on 31st December, 1946.

The total number of births notified by midwives was 3,262 or 31·8 per cent. of the total births registered, as compared with 2,429, or 29·4 per cent. for the previous year.

Municipal Midwifery Service.—During the year 36 Municipal Midwives were employed directly by the Authority. For the district training of medical students six midwives were employed by the Maternity Hospital.

The following table gives details of the work done by the Municipal Midwives :—

MUNICIPAL MIDWIVES.

	Municipal Midwives	Maternity Hospital Midwives	Total
Ante-natal visits	11,795	2,880	14,675
Deliveries { Midwife	2,610	512	3,122
{ Maternity Nurse	308	21	329
Post-natal visits	45,629	8,135	53,764
Bookings { Midwife	2,951	674	3,625
{ Maternity Nurse	250	29	279
Examinations at Midwife's home	6,425	3,788	10,213
Number of Midwives	36 full-time 1 part-time	6	43

Supervision of Midwives.—During the year the Municipal Midwives were interviewed at the Health Department once a week by the Lay Supervisor, who also paid 212 routine visits of inspection to their homes with, in addition, 181 special visits.

Medical Assistance.—Notifications of having advised medical assistance were received in 1,122 domiciliary cases and in 52 institutional cases.

For attendance on emergencies under Section 14 of the Midwives Act, 1918, there were 826 claims made by medical practitioners, involving a cost to the Corporation of £427 6s. 2d.

Puerperal Pyrexia.—There were 79 notifications of which 30 (estimated) were true sepsis. Of the latter, 10 were midwives' cases, 2 doctors' cases and 18 occurred in institutions. In addition, 4 fatal cases of septic abortion were not notified as puerperal pyrexia (see page 34, Infectious Diseases Section).

Nursing in the Home.—Cases referred to the Leeds District Nursing Association during the year numbered 1,346.

Home and Domestic Helps.—At the beginning of the year there were 8 home or domestic helps in full-time employment. This number was increased to 12 during the year. Three others were employed intermittently as required. Home help was provided for 137 maternity and child welfare cases and domestic help for 7 other cases.

Ante-natal Work.—Expectant mothers attending the ante-natal clinics during the year numbered 12,222, an increase of 3,135 on the figure for 1945. Of the total, 9,359 were new cases. The total attendances at all the ante-natal clinics were 43,659 compared with 33,871 for 1945. The large number of cases attending the clinics is partly accounted for by the arrangements made whereby all mothers wishing to book hospital accommodation for their confinement must do so through the ante-natal clinics, and partly by the increased demands for hospital accommodation.

Natal Work.—Of 10,681 notified births which occurred during the year, 6,921 or 64·8 per cent. took place in institutions or nursing homes in the city. In 1945 the percentage was 69·0.

The number of cases admitted to Emergency Maternity Hospitals during 1946 was 304, as compared with 184 in 1945.

Part II Midwifery Training.—In September, 1946, a district training school for 24 pupil midwives was opened at Redcourt Hostel under the direction of a resident Superintendent Midwife Teacher. By the end of the year 16 pupils were in training.

REGISTERED NURSING HOMES IN THE CITY.

	Maternity		Maternity and General.			General.		Total.		
	Homes.	Beds.	Homes.	Beds.		Homes.	Beds.	Homes.	Beds.	
				Mat'y.	Gen.				Mat'y.	Gen.
On register, 31st Dec., 1945 ..	9	105	4	26	40	7	123	20	131	163
Registered during 1946 .. ..	..	..	..	4	..	2	23	2	4	23
Registration cancelled or surrendered during 1946 ..	..	..	..	..	23	..	..	..	..	23
On register 31st Dec., 1946 ..	9	105	4	30	17	9	146	22	135	163

Nurses Act, 1943, Part II.—Agencies for the supply of Nurses.—

Under this Act five nursing agencies applied for registration in January, 1946 and were issued with licences. One application was withdrawn as the agency was discontinued.

Specialist Service.—The number of claims from consultants for services rendered in connection with the Corporation's Maternity Scheme was 24 at a total nett cost of £65 os. 2d.

Maternal Mortality.—During the year 12 mothers lost their lives during pregnancy and childbirth, as compared with 14 in 1945. The corresponding mortality rate was 1·21 per thousand live births and 1·18 per thousand total births (live and still). The comparative figures for 1945 were 1·80 and 1·75. The causes of death were as follows: septic abortions 4; toxæmia 5; hæmorrhage 3. The number who had attended the ante-natal clinics was 7.

Stillbirths.—The number notified in 1946 was 377 or 3·7 per cent. of total births notified, as compared with 325 or 4·0 per cent. in 1945.

Neo-Natal Mortality.—There were 235 neo-natal deaths during the year, as compared with 222 in 1945. The corresponding mortality rates were 23·8 and 28·6.

Home Visiting.—The total number of visits paid by Health Visitors during 1946 amounted to 107,020. This is a decrease of 30,933 on the 1945 figure and is accounted for by shortage of staff.

A complete summary of the work of the health visitors is as follows :—

	VISITS.
Notified births including re-visits	81,148
Stillbirths and deaths under one month including re-visits	465
Investigations into the death of children from one month to five years	370
Ophthalmia Neonatorum	37
Expectant Mothers	7,914
Special visits (medical aid claims, infectious diseases, etc.)	3,285
Sick children notified from Leeds General Infirmary, Public Dispensary and St. James's Hospital	40
Infant Life protection	367
Ineffectual visits	12,886
Adoption of Children (Regulation) Act, 1939 :—	
Homes inspected	123
Visits to children placed for adoption ..	385
 Total visits for the year	 107,020

Eye Defects.—Children classified as blind or partially blind.—There were 12 children on the register on 1st January, 1946. During the year no children were notified, 4 were transferred to the Education Authority on reaching five years, making a total of 8 at the end of the year. Of these, 7 were suffering from a congenital eye defect and one from an infective condition.

Infant Life Protection.—During the year a total of 367 visits were paid to foster children by Health Visitors and the Superintendent. The subjoined table gives particulars of the children nursed for reward during 1946.

INFANT LIFE PROTECTION.

PUBLIC HEALTH ACT, 1936. Part vii. Sec. 206-219.

CHILDREN NURSED FOR HIRE OR REWARD DURING THE YEAR 1946.

MOTHERS.

Number of foster-mothers on the register at the beginning of the year	55
Number of foster-mothers on the register at the end of the year	35
Foster-mothers with one child	31
Foster-mothers with two children	2
Foster-mothers with four children	1
Foster-mothers with eleven children	1

CHILDREN.

Number of children on the register at the beginning of the year	61
Number of children placed on the register during 1946	31
Number of children who ceased, during the year, to come under the provision of this Act	38
Number of children transferred to other foster mothers	..
Number of children on the books at the end of the year	54

DETAILS OF THE NUMBER OF CHILDREN WHO CEASED, DURING THE YEAR, TO COME UNDER THE PROVISIONS OF THE PUBLIC HEALTH ACT, 1936.

Returned to parents or relatives.. .. .	21
Attained the age of 9 years	5
Adopted without payment	7
Sent to special homes, etc.	4
Moved out of the district—no trace .. .. .	..
Died	1
TOTAL	38

Adoption of Children (Regulation) Act, 1939.—Children placed through the Health Department with a view to adoption during 1946 numbered 64. In 47 cases adoption has been completed. Of these 20 had been placed for adoption during 1945. The comparative figures for 1945 were 64 and 43, respectively.

Infant Welfare Centres.—The number of Infant Welfare Centres (Babies' Welcomes) in use during 1946 was 20.

Attendances at Welcomes.—The number of new babies under one year admitted during the year was 6,306, between one and two years 389, and between two and five years 699. These figures show an increase of 968 infants under one year, and a decrease of 14 children between one and five years. The total number of names on the registers at the Welcomes at the beginning of 1946 was 11,787. With 7,394 new children registered, and 6,791 names removed of children who had reached the age of five years, defaulted or left the district, the total at the end of the year was 12,390.

Mortality of 'Welcome' Children.—Of children between the ages of two weeks and one year who had attended the Welcomes, 45 died, as compared with 209 for the city; the corresponding infant mortality rates were 7 and 20 respectively.

Central Clinic.—Dental.—New patients numbering 738 received treatment during the year. Of these 524 were expectant mothers, 130 mothers and 84 children. The total number of treatments was 10,179; expectant mothers 5,268, mothers 4,549, children 362, an increase of 1,729 on the previous year. Full dentures were supplied in 168 cases, partial dentures in 119. In addition, 8 remodels and 14 repairs were completed.

Orthopaedic.—A total of 302 children was seen at the Clinic during the year, a decrease of 198 on the number for 1945. Of these 6 cases were admitted to hospital for treatment; 3 received treatment in the Marguerite Home, Thorp Arch, and 57 were transferred to the School Clinic on reaching the age of five years.

Appliances were supplied to 13 cases at a cost of £5 2s. od.

Massage.—A total of 7,714 treatments was given during the year, a decrease of 1,563 on the figure for 1945, due to shortage of staff, as there were only three instead of five full-time physiotherapists.

Artificial Sunlight.—This continued to be given at Central Clinic, Middleton Clinic and at Holbeck and Armley Welcomes. The total number of children treated during the year was 1,118 and the total treatments given 17,948, a decrease of 44 and an increase of 935 respectively on the numbers for 1945.

Venereal Diseases.—The number of patients attending this Clinic during the year was 241 compared with 160 for 1945. Of these 49 were expectant mothers, 80 mothers and 112 infants. Included in these figures are 70 mothers and 100 infants who attended for routine blood test for adoption.

Almoning Committee.—This Committee met on 50 occasions and considered 2,048 cases, a decrease of 30 on the number for 1945.

Food Supplements.—Under the Government Scheme, National Dried Milk for infants has continued to be distributed from the Welcomes, as well as Vitamin preparations for expectant mothers and children under five years. The potential take-up of orange juice was 46.64 per cent., of cod liver oil 31.85 per cent. and of vitamins A and D 51.74 per cent. The comparative figures for 1945 were 51.15 per cent., 24.49 per cent. and 43.03 per cent.

Convalescent Treatment for Mothers and Children.—Convalescence was arranged for 25 mothers and 12 babies.

Infants' Hospital.—The Infants' Hospital was transferred in February, 1946, from the temporary premises in Knaresborough occupied during the war to the Bishop Cowgill Institute, Leeds, requisitioned originally for the accommodation of chronic sick and with the termination of hostilities now made available for this purpose.

There were 29 children in the hospital on 1st January, 1946. During the year 69 children were admitted and 76 discharged. On 31st December, 1946, there were 22 remaining in hospital.

Wyther Hostel.—This home for unmarried mothers and their babies continued in operation during the year. On 31st December, 1945, there were 10 mothers and babies in residence. During the year 39 mothers and 45 babies were admitted, of whom 15 mothers were admitted for ante-natal care and 8 babies without mothers by arrangement with the Social Welfare Committee. Of the 42 mothers

and babies discharged, 24 mothers kept their babies, 17 babies were placed with a view to adoption and one baby died in hospital. The Social Welfare Committee made arrangements for 4 children; 2 were re-admitted to Street Lane Homes and 2 returned to their mothers. On 31st December, 1946, there were 6 mothers and 10 babies remaining in the home.

Residential and Day Nurseries.—The following table gives particulars of children admitted to Residential and Day Nurseries during the year :—

RESIDENTIAL NURSERIES.				
Name of Nursery.	Accommodation	Average No. of beds occupied (weekly).	Total Number Attendances	Remarks
Spring Bank :— (Peace Time) ..	50	48.9	17,833	Peace Time beds 60 from 1.4.46.
(War Workers) ..	30	17.3	1,560	Trans. to Peace Time 1.4.46.
DAY NURSERIES.				
Blenheim :— (Peace Time) ..	45	37.3	10,643	Peace Time beds 50 from 1.4.46.
(War Workers) ..	22	20.7	1,517	Trans. to Peace Time 1.4.46
*Woodhouse ..	35	23.0	2,638	Trans. to Education Dept. 3.6.46.
Quarry Hill ..	35	28.5	8,041	
East Street ..	35	29.0	8,187	
Jack Lane ..	50	35.5	10,068	
Burley Park ..	35	26.8	7,586	
Middleton ..	35	27.1	7,472	
*Cross Flatts ..	35	26.6	3,032	Trans. to Education Dept. 3.6.46.
Meanwood ..	35	30.2	8,485	
*Londesboro' Grove	35	29.2	3,316	Trans. to Education Dept. 3.6.46.
Rookwood ..	35	25.9	6,804	Closed for Infection 17.1.46. to 11.2.46.
Harehills (Day) ..	50	36.3	9,329	Closed 23.11.46.
Church Road ..	35	27.7	7,856	
Low Road ..	35	28.6	8,122	
Houghley Lane ..	35	26.9	7,680	
Sheepscar ..	35	27.5	7,720	
*Grange Avenue ..	50	25.6	2,053	Trans. to Education Dept. 3.6.46.
York Road ..	50	39.8	11,297	
Crossgates ..	50	28.6	8,053	

* Closed as Day Nurseries on 25.5.46 and transferred to Education Department, 3.6.46.

MEAT INSPECTION.

BY

JAMES GOODFELLOW, M.R.SAN.I., A.M.I.S.E.,

Chief Meat and Foods Inspector.

Mr. J. A. Dixon, M.R.C.V.S., who held the post of Chief Veterinary Officer of Leeds, was in charge of the Food and Drugs Section until 30th September, 1946, on which date he retired.

Slaughter-Houses.—The slaughter-house belonging to the Leeds Industrial Co-operative Society continued to be used as a slaughter-house by the Ministry of Food, but the other 7 licensed slaughter-houses were not used; the licences of all were renewed.

The one knacker's yard in the city has been well conducted and its licence renewed.

ANIMALS SLAUGHTERED AT GOVERNMENT SLAUGHTER-HOUSES.

	Year	Cattle ex. Cows	Cows	Calves	Sheep	Pigs	Total
Government Slaughter-house No. 1 (Public Abattoir)	1945	17,055	5,427	17,169	64,847	2,345	106,843
	1946	16,574	4,312	15,182	66,457	474	102,999
Government Slaughter-house No. 2 (Danube Road)	1945	5,563	2,264	4,416	27,210	871	40,324
	1946	5,958	1,853	3,268	27,447	393	38,919

In addition to the above animals, 2,413 horses and 9 goats were slaughtered at the Public Abattoir for human food.

CARCASSES INSPECTED AND CONDEMNED.

	Cattle (excluding cows)	Cows	Calves	Sheep and Lambs	Pigs	Horses
ALL DISEASES EXCEPT TUBERCULOSIS.						
Whole carcasses	12	65	49	150	16	25
Carcases of which some part or organ was condemned	4,034	1,037	31	3,012	47	457
Percentage of numbers inspected affected with diseases other than Tuberculosis	17·96	17·88	0·43	3·37	7·27	19·98
TUBERCULOSIS ONLY.						
Whole carcasses	47	240	7	5	13	..
Carcases of which some part or organ was condemned	1,334	1,522	5	41	41	..
Percentage of numbers inspected affected with tuberculosis	6·13	28·58	0·07	0·05	6·23	..

Meat and other foods condemned as unsound.—The total amount of meats, etc., destroyed by consent during the year was 803,354 lbs., as compared with 1,042,535 lbs. in the previous year. Details are given in the following table :—

MEAT, ETC., DESTROYED BY CONSENT.

	1946.	1945.	1944.	1943.
Beef	171,435 lbs.	231,681 lbs.	263,147 lbs.	202,791 lbs.
Veal	2,747 "	2,420 "	2,098 "	1,740 "
Mutton	6,453 "	5,241 "	5,363 "	7,510 "
Pork	4,111 "	10,521 "	10,131 "	7,207 "
Bacon and Ham ..	103 "	1,048 "	3,527 "	5,614 "
Offals.. ..	196,212 "	176,468 "	174,823 "	96,103 "
Rabbits	3,365 "	3,916 "	5,024 "	6,714 "
Poultry	1,447 "	8,725 "	692 "	800 "
Game.. ..	..	..	..	18 "
Horse Flesh ..	11,035 lbs.	8,240 lbs.	6,060 lbs.	1,550 "
Fish	40,795 "	52,313 "	73,465 "	40,967 "
Shellfish	51,493 "	45,725 "	21,693 "	53,154 "
Vegetables	164,064 "	314,771 "	178,167 "	263,212 "
Fruit	18,034 "	91,594 "	20,303 "	3,014 "
Tinned goods ..	70,004 "	60,016 "	51,637 "	66,167 "
Cheese .. ..	..	..	..	724 "
Edible Fungi ..	..	24 lbs.	..	90 "
Bread and Cereals ..	23,513 lbs.	18,172 "	8,577 lbs.	23,951 "
Flour .. ..	..	..	1,268 "	44 "
Biscuits .. ..	..	3,200 lbs.	..	..
Beans .. ..	..	1,210 "	..	..
Sundries	38,543 lbs.	7,250 "	7,902 lbs.	8,283 lbs.
Totals	803,354 lbs.	1,042,535 lbs.	833,877 lbs.	789,653 lbs.
No. of Eggs.. ..	64	976	80	..

Slaughter of Animals Act, 1933.—During the year 22 fresh licences to slaughter or stun animals were granted by the City Council and 24 licences were renewed. No proceedings were taken under this Act.

DISEASES OF ANIMALS ACTS

BY

JAMES GOODFELLOW, M.R.SAN.I., A.M.I.S.E.,

Chief Inspector.

Tuberculosis Order of 1938.—The table hereunder is compiled from information supplied to the local authority by the Ministry of Agriculture and Fisheries.

No. of suspected animals reported or found.	No. affected with tuberculosis and slaughtered.	No. of animals found to be not amenable to the Order.
49	38	11

Swine Fever Order of 1938.—During the year there were received 11 cases of suspected swine fever, all of which were investigated by the Veterinary Inspector of or on behalf of the Ministry of Agriculture and Fisheries. None of these cases was confirmed.

Regulation of Movement of Swine Order of 1922.—Under this Order 271 licences for the disposal of 1,428 pigs from the Whitkirk Auction Mart were issued, and 172 visits have been paid to pig keeping premises to ascertain whether the recently removed store pigs were detained and isolated for the appropriate period.

Regulation of Movement of Animals (Records) Order, 1925.—Proceedings were taken against a pig keeper for failing to keep a record of the movement of animals to and from his premises; the case was dismissed under the Probation of Offenders Act.

Anthrax Order of 1938.—During the year four cases of suspected anthrax were reported, one of which was found to be positive, the remaining three cases died from diseases other than anthrax.

Animals (Landing from Ireland, Channel Islands and Isle of Man) Order of 1933.—During the year, 3,046 Irish store cattle were received on direct purchase by the Ministry of Food and 43 Irish cattle were received at premises in the city.

Foot and Mouth Disease.—During the year the city was not included in a foot and mouth disease infected area.

MILK AND DAIRIES

BY

JAMES GOODFELLOW, M.R.SAN.I., A.M.I.S.E.,
Chief Meat and Foods Inspector.

Dairy Farms, Dairies and Milk Sellers.—The following tables show the number of registered dairy farms, dairies and milk sellers in the city on December 31st, 1946.

DAIRY FARMS AND COWKEEPERS.

	Dairy Farms	Cow- keepers
No. on register on 31st December, 1945	114	110
No. added to the register during the year .. ..	..	10
No. removed from the register during the year	1	11
No. on register on 31st December, 1946	113	109

DAIRIES AND RETAIL PURVEYORS OF MILK.

	Dairies	Retail Purvey- ors of milk
No. on the register on 31st December, 1945 (including 34 entries in respect of purveyors with premises in the surrounding County Area)	318	290
No. added to the register during the year	7	18
No. removed from the register during the year	86	94
No. on register on 31st December, 1946 (including 18 entries in respect of purveyors with premises in the surrounding County Area)	239	214

The following visits were paid during the year by the Food and Drugs Inspectors and Cowsheds and Dairies Inspector :—

To dairies	1,683
To cowsheds	1,965
To railway stations	91
To farms or dairies <i>re</i> infectious disease	10
To foodshops and bottled milk stores	253

Milk and Dairies Order, 1926, Article 23 (2).—Proceedings were taken against a firm of farmers for milking dirty cows ; they were found guilty and fined £6, also an employee was found guilty of aiding and abetting and fined £2.

Article 28.—Proceedings were taken against an Hotel for returning dirty milk churns to the railway station ; they were found guilty and fined £2, an employee was also found guilty of aiding and abetting and fined £2.

**LICENCES ISSUED UNDER THE MILK (SPECIAL DESIGNATIONS)
REGULATIONS, 1936-1946.**

Description of Licences.	Number in force on 31st December			
	1944	1945	1946	
To use the designation " Tuberculin Tested "—				
1. To produce and bottle	3	3	3	
2. To produce, but not bottle .. ..	..	..	1
3. To sell by retail	17	17	15	
4. To bottle and sell	1	2	2	
To use the designation " Accredited "—				
1. To produce and bottle	6	6	5	
2. To produce, but not bottle	64	61	61	
3. To sell by retail	5	4	4	
4. To bottle and sell .. .. .	..	..	..
To use the designation " Pasteurised "—				
1. Pasteurisers' Licences	4	4	4	
2. To sell by retail	13	11	13	

Food and Drugs Act, 1938, Section 21 (2B).—Proceedings were taken for selling pasteurised milk without a licence and for using the designation " Pasteurised " ; the retailer was found guilty and fined £5.

DEPARTMENTAL BACTERIOLOGICAL LABORATORY.

SAMPLING UNDER FOOD AND DRUGS ACT, 1938, FERTILISERS
AND FEEDING STUFFS ACT, 1936, AND RAG FLOCK ACTS,
1911 AND 1928.

PHARMACY AND POISONS ACT, 1933, PART II, AND PHARMACY AND MEDICINES ACT, 1941.

BY

J. F. WARIN, M.D., CH.B., D.P.H.,
Deputy Medical Officer of Health.

Departmental Bacteriological Laboratory.—Milk.—During the year 2,777 samples of milk were submitted to the Departmental Laboratory for bacteriological examination. The samples were taken from the following grades of milk : “ Tuberculin Tested ” (49), “ Accredited ” (1,476), “ Pasteurised ” (249), “ Heat Treated ” (55), “ Sterilised ” (48), “ Ungraded ” (900). Samples were taken at farms and distributing centres ; in course of delivery to local institutions ; at railway stations, and from road vehicles used for the conveyance of milk. The accompanying tables give detailed information of the results of the tests applied.

METHYLENE BLUE (REDUCTION) TEST.

Designations	Total Samples Taken	Result of Test			
		Satisfactory		Unsatisfactory	
		No.	Percent- age	No.	Percent- age
*Pasteurised	249	219	87·9	30	12·1
*Sterilised	48	48	100·0	..	..
*Heat Treated	55	46	83·6	9	16·4
†Tuberculin Tested	49	46	93·9	3	6·1
†Accredited	1,476	1,200	81·3	276	18·7
†Ungraded	900	675	75·0	225	25·0

*Satisfactory samples not to decolourise Methylene Blue at 37°C. in 30 minutes.

† Satisfactory samples not to decolourise Methylene Blue at 37°C. in 4½ hours, May to October, or 5½ hours, November to April.

COLIFORM TEST.

Designation	Total Samples Taken	Result of Test			
		Satisfactory		Unsatisfactory	
		No.	Percentage	No.	Percentage
*Pasteurised	249	219	87.9	30	12.1
*Sterilised	48	48	100.0	..	..
*Heat Treated	55	51	92.7	4	7.3
†Tuberculin Tested ..	49	49	100.0	..	..
†Accredited	1,476	1,302	88.2	174	11.8

* Bacillus Coli must be absent in 1 tube of 1 m.l. 1/1000 dilution of milk for the sample to be regarded as satisfactory.

† Bacillus Coli must be absent in 2 out of 3 tubes of 1 m.l. 1/100 dilution of milk for the sample to be regarded as satisfactory.

PHOSPHATASE TEST.

Designation	Total Samples Taken	Result of Test			
		Satisfactory		Unsatisfactory	
		No.	Percentage	No.	Percentage
Pasteurised	249	246	98.8	3	1.2
Sterilised	48	48	100.0	..	..
Heat Treated	55	52	94.6	3	5.4

Satisfactory samples not to give colour reading of more than 2.3 Lovibond Blue Units.

Biological Test.—During the year 408 samples of milk were submitted to the City Bacteriologist for biological investigation for the presence of tubercle bacilli. The results are shown in the following table :—

Designation	Total Samples Taken	Result of Test			
		Positive		Negative	
		No.	Percentage	No.	Percentage
Tuberculin Tested ..	21	..	..	21	100.0
Accredited	112	8	7.1	104	92.9
Pasteurised	16	..	..	16	100.0
Ungraded	259	2	0.8	157	99.2
Total	408	10	2.5	398	97.5

In general these results show that Pasteurisation is being carried out very efficiently in the city, whilst the results of Tuberculin Tested and Sterilised milks are also very good. In the case of "Heat Treated" milk the results are not quite so satisfactory and the finding of tubercle bacillus in 7.1 per cent. of samples of "Accredited" milk reveals how "unsafe" such milk can be in spite of every care on the part of the producer.

Ice Cream.—During the year 98 samples of ice cream were taken from the place of manufacture or from local vendors for bacteriological examination. The results are shown in the following tables :—

BACTERIAL COUNT.

Organisms per M.L.	No. of Samples	Percentage	Remarks
Under 30,000 ..	18	18.4	Good
30,000—100,000	7	7.1	Satisfactory
Over 100,000 ..	73	74.5	Unsatisfactory

COLIFORM TEST.

Bacillus Coli	No. of Samples	Percentage	Remarks
Absent in $\frac{1}{100}$ th M.L.	30	30.6	Good
Present in $\frac{1}{100}$ th— $\frac{1}{1000}$ th M.L. ..	24	24.5	Unsatisfactory
Present in $\frac{1}{1000}$ th M.L.	44	44.9	Very unsatisfactory

These results demonstrate the very unsatisfactory bacteriological purity of much of the ice cream sold in the city and when considered in conjunction with the negligible nutritional value revealed by chemical analysis the unsatisfactory state of this product becomes obvious. The new Heat Treatment Regulations which become operative on 1st May, 1947, should go a long way to improve the bacteriological quality of ice cream.

Food and Drugs.—The Sampling Officers took 1,794 formal and 18 informal samples of milk ; 188 formal and 44 informal samples of other foods or drinks, and 13 formal samples of drugs during the year. The results of the analyses of these samples are given in the City Analyst's report.

Fertiliser and Feeding Stuffs Act, 1936.—During the year 18 samples of fertiliser, 6 formal and 12 informal, were taken under the above-mentioned Act and submitted to the Agricultural Analyst for examination. Two formal and two informal samples were unsatisfactory.

Rag Flock Acts, 1911 and 1928.—During the year two samples of rag flocks were taken and submitted for analysis; both were reported as satisfactory.

Pharmacy and Poisons Act, 1933 (Part II).—The administrative year for the purpose of the above mentioned Act is the period 1st May to 30th April. The appended table gives a detailed summary of the work done during the year ended 30th April, 1947.

Persons on the List on 30th April, 1946	246
Persons added to the List during the year	76
Persons removed from the List during the year	47
Persons on the List on 30th April, 1947	275
Premises on the List on 30th April, 1946	369
Premises added to the List during the year	91
Premises removed from the List during the year	48
Premises on the List on 30th April, 1947	412
Visits paid to :—	
1. Listed Premises in connection with new applications	91
2. Listed Premises in connection with unpaid fees	28
3. Listed Premises for routine inspection	897
4. Unlisted Premises	136
Contraventions :—	
Persons found to be selling Part II Poisons on Unlisted Premises	36
Listed Sellers found with incorrectly labelled Part II Poisons in stock	23
Contraventions dealt with :—	
Persons ceasing to sell Part II Poisons from Unlisted Premises	22
Persons selling Part II Poisons from Unlisted Premises who subsequently applied for listing	14
Listed Sellers who have corrected labels found to be not in accordance with requirements as to labelling	23

Pharmacy and Medicines Act, 1941.—No contraventions have come to the notice of the Department during the year.

Municipal Laboratory

BY

C. H. MANLEY, M.A., F.R.I.C., *City Analyst.*

The following is a summary of the analyses made during 1946 :—

Samples submitted by inspectors under the Food and Drugs Act, 1938, and Defence (Sale of Food) Regulations, 1943	2,057
Samples submitted by inspectors under the Fertilisers and Feeding Stuffs Act, 1926	18
Samples submitted by inspectors under the Rag Flock Acts, 1911 and 1928	2
Samples analysed for various Corporation Departments, Institutions, etc.	949
Total	3,026

FOOD AND DRUGS.

The tables on pages 122, 123 and 124 summarises the samples taken under the Food and Drugs Act, 1938, and the Defence (Sale of Food) Regulations, 1943.

The percentage adulteration was 7·6 as compared with 5·2 for 1945.

Milk.—Of 1,812 samples, 109 (6·0 per cent.) were unsatisfactory. Of these, 76 contained added water, 25 were fat deficient, 6 showed both added water and fat deficiency, and 2 contained dirt.

The greatest proportion of added water found in any milk procured by the Sampling Officers was 20 per cent., and the greatest fat deficiency was similarly 30 per cent.

The average composition of all the samples examined was as follows, the corresponding figures for 1945 being given for comparison :—

Non-fatty solids	1946.	1945.
Fat	8·65% ..	8·74% ..
	3·77% ..	3·73% ..
Total Solids	12·42% ..	12·47% ..

Baking Powder (22).—Four of the samples failed to conform to the requirements of the Food Standards (Baking Powder) Order, 1944, regarding the 8 per cent. minimum available carbon dioxide content, Nos. 22H and 280L each containing only 7 per cent. gas (12.5 per cent. deficient) and Nos. 894L and 895L each containing only 5.5 per cent. gas (31.3 per cent. deficient).

On proceedings being instituted against the firm retailing the last two samples, which represented old stock purchased in 1942, a plea of guilty was entered and a fine of £5 imposed.

Lemon Flavoured Biscuit Mixture (1).—*No. 195H.*—This consisted of a mixture of cereals (wheat, rye and oatmeal) with about 1 per cent. salt and a yellow dye. There was no evidence of any lemon flavour. Contrary to the requirements of the Labelling of Food (No. 2) Order, 1944, there was no statement of composition on the label of the container. The unpleasant taste suggested that it was old stock and the retailer agreed to withdraw the outstanding stock.

Coldsett Dessert Sauce Powder (1).—*No. 165H.*—This represented a new line in food products, as it consisted of coloured and flavoured sodium alginate, a substance obtained from seaweed, which is finding various industrial uses today.

Egg Substitute Powder (1).—*No. 347H.*—This sample, which was a yellow coloured baking powder, was of inferior quality, containing only 3.54 per cent. available carbon dioxide instead of the 6 per cent. minimum found in the satisfactory product (now known as Golden Raising Powder). As it possessed a licence number it would be over three years old, as licences for the manufacture of articles under this name were withdrawn in February, 1943. Unfortunately, no time limit was placed on their sale by retail.

Ice Cream (38) Informal.—Only six of the samples made any approach to the name, their fat contents being 4.6–9.8 per cent. The remainder contained from 2.3 per cent. fat down to none at all. Despite a statement in the local press in August that a national standard for ice cream was being negotiated between the Ministry of Food and trade organisations of the ice cream industry, no such standard had been fixed six months afterwards.

Malted Soyacream (1).—*No. 344H.*—Whilst conforming to the description, this powder contained appreciably less protein, fat and mineral matter than the approximate percentages claimed for it on the wrapper. The manufacturers were accordingly warned by letter from the Medical Officer of Health.

Mashed Potato Powder (1).—*No. 741L.*—This consisted of dehydrated potato, which, on treatment with water according to the directions given on the packet, yielded a satisfactory form of mashed potato. It contained 10 per cent. moisture, 3.1 per cent. mineral matter, 6.25 per cent. proteins, 0.25 per cent. oil and 80.40 per cent. carbohydrates and fibre.

Parsley (3).—These consisted of parsley in a dried and finely divided form, two of which were sold under the name of "Rubbed Parsley." The first of these two (*No. 572L.*) contained about 5 per cent. extraneous mineral matter, but the second obtained from a fresh consignment, proved satisfactory.

Potted Meat (2).—One of these (*No. 368H*) was not a potted meat, but a product containing 60 per cent. meat, the maximum permitted at the time in a meat paste. The manufacturer was accordingly warned.

Sausages (7).—One of these (*No. 570L*) contained more meat (56.5 per cent.), and another (*No. 682H*) less meat than that required by the Statutory Order in force at the time. The vendor of the *No. 682H*, containing only 43 per cent. meat, was sent a warning letter. A minimum meat content of 50 per cent. is now expected in a sausage.

Shredded Suet (2).—One of these (*No. 556L*) contained only 80.3 per cent. fat instead of the 83 per cent. minimum required by the Food Standards (Shredded Suet) Order, 1944.

Vinegar (25).—All the samples sold as "malt vinegar" and "spirit vinegar" were satisfactory. One sample (*No. 684H*) sold simply as "vinegar" did not merit the unqualified title, as it was not a brewed product, but merely a coloured and diluted 6.5 per cent. acetic acid solution. Two others, sold as "non-brewed" (*No. 162H*) and "unfermented table" (*No. 439H*) vinegar, contained only 3.86 per cent. and 3.20 per cent. acetic acid respectively, instead of the recognised 4.0 per cent. minimum.

Glauber's Salts (1).—*No. 462H.*—This was in the form of a white powder instead of crystals, it having lost much of its water of crystallisation by exposure to air. Consequently it assayed at 156 per cent. instead of at a British Pharmacopoeia figure of 99—102 per cent., which makes allowance for a reasonable loss of water during storage.

The remaining samples were satisfactory.

OTHER ANALYSES

Apart from the work carried out in connection with the administration of the Fertilisers and Feeding Stuffs Act, 1926, and the Rag Flock Acts, 1911 and 1928, numerous analyses have been made for the Waterworks Department, and various enquiries dealt with from other Corporation Departments and from St. James's Hospital. Also the work undertaken for the West Riding Regional Smoke Abatement Committee has been both continued and extended, the number of rain gauges having been increased from five to seven, and the lead peroxide sulphur recording cylinders from two to six, monthly analyses being made in each case.

In conclusion, my best thanks are due to my staff for their consistent help in a somewhat difficult year, which, following their return from Active Service, saw the resignation of the two senior members, Mr. A. Houlbrooke, M.Sc., F.R.I.C., to become Staffordshire County Analyst and Mr. R. A. Dalley, F.R.I.C., to qualify for the position of Chief Assistant in the Somerset County Analyst's Laboratory.

FOOD AND DRUGS ACT, 1938.

SAMPLES SUBMITTED TO THE CITY ANALYST DURING 1946.

Article.	No. examined.			No. adulterated.			Per-centage adultera-tion.
	Formal	Informal	Total	Formal	Informal	Total	
FOOD :—							
Arrowroot.. ..	2	..	2	..	..	..	..
Baking Powder	22	..	22	4	..	4	18·2
Barley Crystals	1	..	1	..	..	..	..
Barley Flakes	1	..	1	..	..	..	..
Barley Kernels	2	..	2	..	..	..	..
*Barley, Pearl	2	..	2	..	..	..	..
Beef Suet	1	..	1	..	..	..	..
Biscuit Mixture	1	..	1	1	..	1	100·0
Blancmange Powder	1	..	1	..	..	..	..
Bournvita	1	..	1	..	..	..	..
Bun Flour	4	..	4	..	..	..	..
*Butter	1	1	2	..	..	..	..
Cake Flour	4	..	4	..	..	..	..
Cake Mixture	2	..	2	..	..	..	..
Chocolate Powder	1	..	1	..	..	..	..
Chocolate Spread Powder	1	..	1	..	..	..	..
Cinnamon, Ground	1	..	1	..	..	..	..
Cocoa	15	1	16	..	..	..	..
Coffee	8	1	9	..	..	..	..
Coldsett Dessert							
Sauce Powder	1	..	1	..	..	..	..
Curry Powder .. ..	..	1	1	..	..	..	..
Custard Powder	1	1	2	..	..	..	..
Dessert Mould	1	..	1	..	..	..	..
Egg Substitute Powder	1	..	1	1	..	1	100·0
*Fish Cakes	1	..	1	..	..	..	..
*Fish Paste (Salmon)	1	..	1	..	..	..	..
*Gelatine	1	1	2	..	..	..	..
*Gelatine, Ground	1	..	1	..	..	..	..
Gin	1	..	1	..	..	..	..
Ginger Ground	5	..	5	..	..	..	..
Golden Raising Powder	3	..	3	..	..	..	..
Gravy Powder	2	..	2	..	..	..	..
Gravy Salt	1	..	1	..	..	..	..
Ice Cream .. ..	..	38	38	..	32	32	84·2
*Jam, Damson .. ..	..	1	1	..	..	..	..
Lard	3	..	3	..	..	..	..
Carried forward ..	94	45	139	6	32	38	..

* Tested for preservative.

FOOD AND DRUGS ACT, 1938.

SAMPLES SUBMITTED TO THE CITY ANALYST DURING 1946—Continued.

Article.	No. examined.			No. adulterated.			Percentage adulteration.
	Formal	Informal	Total	Formal	Informal	Total	
Brought forward ..	94	45	139	6	32	38	..
Lemonade.. ..	1	..	1	..	..	..	..
Malted Milk ..	2	..	2	..	..	..	..
Malted Oatmeal ..	1	..	1	..	..	..	..
Malted Soyacream ..	1	..	1	1	..	1	100.0
*Margarine ..	1	..	1	..	..	..	..
*Margarine Special ..	2	..	2	..	..	..	..
Mashed Potato Powder ..	1	..	1	..	..	..	..
*Milk	1,794	18	1,812	104	5	109	6.0
Mustard	1	..	1	..	..	..	..
Nutmeg, Ground ..	2	..	2	..	..	..	..
*Orange Squash ..	1	..	1	..	..	..	..
Parsley	3	..	3	1	..	1	33.3
Pepper	3	..	3	..	..	..	..
Pepper Condiment Compound ..	1	..	1	..	..	..	..
Pork Pie .. ..	..	1	1	..	..	..	..
*Potted Meat ..	2	..	2	1	..	1	50.0
Pudding Mixture ..	3	..	3	..	..	..	..
Raspberry Sponge Mixture	1	..	1	..	..	..	..
Rum	3	1	4	..	..	..	..
Sage	1	..	1	..	..	..	..
Sage and Onion Stuffing	3	..	3	..	..	..	..
*Sausages	7	..	7	2	..	2	28.6
Semolina	2	..	2	..	..	..	..
Scone Flour Mixture (Unsweetened) ..	1	..	1	..	..	..	..
Shredded Suet ..	2	..	2	1	..	1	50.0
Sponge Cake Mixture ..	1	..	1	..	..	..	..
Sponge Mixture ..	1	..	1	..	..	..	..
Sponge Pudding Mixture	3	..	3	..	..	..	..
Spice, Mixed ..	1	..	1	..	..	..	..
Soup, Dessicated ..	1	..	1	..	..	..	..
Soup, Powder ..	1	..	1	..	..	..	..
Steamed Pudding Mixture ..	1	..	1	..	..	..	..
Tea	5	..	5	..	..	..	..
Turmeric	1	..	1	..	..	..	..
Carried forward ..	1,948	65	2,013	116	37	153	..

* Tested for preservative.

FOOD AND DRUGS ACT, 1938.

SAMPLES SUBMITTED TO THE CITY ANALYST DURING 1946—Continued

Article.	No. examined.			No adulterated.			Per-centage adultera-tion.
	Formal	Informal	Total	Formal	Informal	Total	
Brought forward ..	1,948	65	2,013	116	37	153	..
Vegetarian Cooking Fat	1	..	1	..	..	..	..
Vinegar	2	..	2	1	..	1	50·0
Vinegar, Malt	15	1	16	..	..	..	..
Vinegar, Non-Brewed ..	4	..	4	1	..	1	25·0
Vinegar, Spirit	1	..	1	..	..	..	..
Vinegar, Unfermented Table	2	..	2	1	..	1	50·0
Whisky	4	..	4	..	..	..	..
Yorkshire Pudding and Batter Mixture	1	..	1	..	..	..	..
DRUGS :—							
Aspirin Tablets	2	..	2	..	..	..	..
Bicarbonate of Soda ..	4	..	4	..	..	..	..
Cod Liver Oil	1	..	1	..	..	..	..
Cream of Tartar	1	..	1	..	..	..	..
Epsom Salts	1	..	1	..	..	..	..
Glauber's Salts	1	..	1	1	..	1	100·0
Iodised Throat Tablets ..	1	..	1	..	..	..	..
Lime Flavoured Sulphur Tablets	1	..	1	..	..	..	..
Maclean's Powder	1	..	1	..	..	..	..
Total ..	1,991	66	2,057	120	37	157	7·6

SUMMONSES ISSUED DURING 1946, UNDER THE FOOD AND
DRUGS ACT, 1938.

No. of Sample	Article.	Adulteration or Deficiency.	Result of Hearing.
164C	Milk	6.0% of added water ..	} Fined £4 and ordered to pay 7/- costs: Producer.
167C	Milk	7.0% of added water ..	
165C	Milk	5.50 of added water ..	Fined £3: Producer.
133L	Milk (informal)	Dirt separated amounted to 20 parts of moist sediment per 100,000 parts of milk.	} Fined £4 and ordered to pay 14/- costs. Producer-retailer.
134L	Milk (informal)		
172L	Milk	13.0% of added water ..	} Fined £4 and ordered to pay 7/- costs: Producer.
173L	Milk	13.0% of added water ..	
308L	Milk	9.0% of added water ..	Fined £2: Producer-Retailer.
309L	Milk	4.5% of added water and 21.0% deficient in fat.	Fined £1: Retailer.
397L	Milk	10.5% of added water ..	Fined £2: Retailer. Employee for aiding and abetting dismissed under the Probation of Offenders Act on payment of 4/- costs.
473L	Milk	5.5% of added water	} Fined £7: Producer-retailer.
474L	Milk	9.0% of added water ..	
475L	Milk	2.5% of added water ..	
478L	Milk	7.5% of added water ..	
479L	Milk	8.5% of added water ..	
480L	Milk	5.5% of added water ..	
491L	Milk	5.5% of added water ..	

SUMMONSES ISSUED DURING 1946, UNDER THE FOOD AND
DRUGS ACT, 1938.—Continued.

No. of Sample	Article	Adulteration or Deficiency	Result of Hearing
680L	Milk	30.0% deficient in fat ..	Fined £3: Retailer.
854L	Milk	10.0% of added water ..	} Fined £4 and ordered to pay 7/- costs: Producer.
859L	Milk	7.5% of added water ..	
872L	Hot Milk	50.0% of added water 66.7% deficient in fat	Case dismissed: Vendor
894L	Baking Powder	} 31.3% deficient in available CO ₂ ..	} Fined £5: Retailer.
895L	Baking Powder		
896L	Milk	6.5% of added water ..	} Fined £10 and ordered to pay £4 costs: Retailer.
902L	Milk	4.5% of added water ..	
911L	Milk	2.0% of added water ..	} Fined £4 and ordered to pay 7/- costs: Producer.
912L	Milk	4.5% of added water ..	
200H	Milk	15.0% of added water ..	Fined £2: Producer-retailer.
251H	Milk	4.5% of added water ..	} Fined £4: Retailer.
252H	Milk	3.5% of added water ..	
253H	Milk	2.5% of added water ..	
813H	Milk	9.0% of added water ..	} Dismissed under the Probation of Offenders Act.
814H	Milk	16.0% of added water ..	
817H	Milk	10.0% of added water ..	
818H	Milk	20.0% of added water ..	

Sanitary Circumstances

BY

JAMES GOODFELLOW, M.R.San.I., A.M.I.S.E.,

Chief Sanitary Inspector.

Water.—Forty-two samples of drinking water were taken by this Department for chemical or bacteriological examination. Eight of these were from springs, wells, pumps or supplies other than the Corporation mains supply. Of these, four were good and four were of doubtful purity, and appropriate action has been taken. Twenty-nine samples were of town's water as supplied at the taps of dwelling-houses. Twenty-six of them were found to be good and three were unsatisfactory. As a result of the three unsatisfactory samples of town's water, five samples were taken at the filter beds of the waterworks at Headingley in collaboration with the Waterworks Manager and Engineer, and suitable action was taken.

Five houses which were found to have no internal water supply, but had to depend on a stand pipe in the yard, were, after negotiation, each provided with a draw-off tap over a sink in the kitchen. This work was carried out by the Department and the cost recovered from the owner.

Sewage Disposal.—Repairs and renewals required to the bacteria beds have not been started owing to delay in the delivery of essential parts. Notwithstanding, a reasonably satisfactory final effluent from the Knostrop Sewage Works has been maintained.

Public Cleansing.—Household refuse collected by the Cleansing Department during 1946 amounted to 141,663 tons, of which 46 per cent. was dealt with by separation and incineration, 9 per cent. by incineration, and 45 per cent. by controlled tipping. Refuse dust, after mechanical separation, was sold for agricultural purposes to the weight of 17,679 tons.

Nuisances.—The number of complaints received during the year was 5,802. The total number of houses surveyed and examined in connection with these and housing defects was 12,449. Nuisances abated numbered 10,497.

The number of preliminary notices served for the abatement of nuisances was 7,317 and the number of statutory notices 1,796. Of the latter 1,716 were effective and 80 were outstanding at the end of the year. A table analysing the work done by district inspectors in 1946 appears on pages 134, 135 and 136.

Keeping of Animals.—The number of pigkeepers in the city was 131, and the number of pigs kept 2,381, being a decrease in both totals as compared with the previous year.

Many complaints of alleged nuisance were received, and 229 visits of inspection were made to pig styes, and the keeping of poultry and other animals was investigated in 164 cases.

Rat Suppression.—During the year, 6,315 inspections were made in connection with rat infestations, and it was necessary to serve 69 notices under the Rats and Mice (Destruction) Act, 1919. The number of rats caught, killed or poisoned was 3,930; premises cleared of rats numbered 53, and 35 buildings were rendered rat proof.

The costs of the services of the two rat catchers employed by the Department together with the costs of rat-proofing premises are recovered from the occupier where neglect has caused the infestation. The total amount of money collected in this connection during the year amounted to £556 14s. 6d.

Closet Accommodation.—During the year three privies, two pail closets and one trough closet were abolished.

The position with regard to the various types of sanitary conveniences in the city at the end of the year was as follows:—privies 146, pail closets 138, trough closets 50 and cistern water closets approximately 179,445.

A large number of preliminary notices was served on owners of property in connection with closet accommodation and in 176 cases statutory notices had to be served. In the owner's default, the water closets appurtenant to 31 houses were repaired at a total cost of £50 2s. 4d., and this amount was recovered from the owners concerned.

Ashpits and Dustbins.—During the year 129 ashpits were abolished, 89 of these being of the sunken type. The Corporation approved grants in aid amounting to £318 4s. 8d. in connection with the abolition of 120 of these ashpits and the provision of 248 dustbins in lieu.

In the first eleven months of the year, as a result of the service of notices under Section 75 of the Public Health Act, 1936, a total of 2,856 metal dustbins were provided by property owners ; and 631 metal dustbins were provided by the Corporation in the owner's default, and the cost of these was recovered in all cases.

On December 1st a new scheme came into force, under which the Corporation acting through the Cleansing Committee undertook themselves to provide and maintain dustbins for private dwelling-houses.

Removal of Offensive or Noxious Matters.—Contraventions of the byelaws relating to the removal of offensive or noxious matters occurred in 11 cases and were dealt with.

Offensive Trades.—One offensive trade, a soap boiler, was discontinued during the year, and the number of premises in the city where offensive trades are carried on is now 114. During the year 161 visits of inspection were made.

Repair of Houses.—Housing Act, 1936, Section 9.—The number of preliminary notices served during the year for the abatement of housing defects was 703 and the number of statutory notices 385. The number of houses rendered fit for habitation under this Section of the Act was 1,099 ; in 11 cases works of repair were carried out in default at a cost of £135 9s. 6d., which was recovered from the owners.

Six certificates and one report were issued under the Rent and Mortgage Interest Restrictions Acts, 1920 to 1939, in respect of houses not in a reasonable state of repair.

Overcrowding of Houses.—Housing Act, 1936 (Part IV).—During the year 265 houses were measured for overcrowding and 3,580 rent books examined to ascertain if the "permitted number" had been inscribed ; 71 houses were surveyed to enable owners to be supplied with the "permitted number."

Common Lodging Houses.—During the year 385 routine visits of inspection were made to common lodging houses.

The following two common lodging houses were closed :—14 and 16 Garden Street, with 21 beds : 14, Harper Street, with 81 beds ; and at the end of the year there were 8 registered common lodging houses, one of which provides accommodation for both men and women.

Houses-let-in-lodgings.—The total number of visits paid to houses of this type was 464. Informal action was taken in 13 cases while 16 statutory notices had to be served.

Cellar Dwellings and Underground Sleeping Rooms.—During the year 33 visits were paid to underground sleeping rooms. No unsatisfactory cases were discovered.

Tents and Vans.—Vigilance was exercised to ensure that no unauthorised land was used as a camping ground, and 1,555 visits of inspection were made to tents, vans or sheds.

Canal Boats.—The number of canal boats on the register at the end of the year was 124; periodical visits of inspection were made to wharves and locks and a complete inspection was made of 191 boats.

Vermin Infestation.—The number of inspections of dwelling-houses for vermin infestation was 640. Council houses found to be bed bug infested numbered 413 and privately owned houses 185. Dwellings disinfested numbered 356.

Public Conveniences.—During the first nine months of the financial year repairs to the six principal conveniences with attendants were carried out at a total cost of £181 15s. 5d. The cost of repairs carried out to the unattended conveniences amounted to £174 4s. 2d., of which more than half was necessitated by wilful damage.

Public Sewers.—During the year 125 public sewers, affecting 539 houses or other premises, were cleansed at a cost to the Department of £358 12s. 8d. Works of repair or maintenance were carried out to 43 defective public sewers, affecting 220 houses or other premises, and the cost of this work amounting to £473 18s. 10d. was recovered from the owners of the premises served by the sewers.

Drains.—During the year it was necessary to carry out 1,054 drain tests, 937 of these being in connection with complaints of nuisances and 117 in respect of new drains relaid in place of those found defective. A large number of preliminary notices was served on owners of property for drainage repairs and in 464 cases it was necessary to serve statutory notices under Section 39 of the Public Health Act, 1936. The drains or other appliances of 18 houses were repaired or renewed by this Department in default as a matter of urgency at a cost of £66 14s. 1d., which was recovered from the owners concerned.

The drain flushing service was continued and the income derived from private flushing amounted to £93 16s. 9d.

Culverts.—The culvert of the Gipton Beck in the gardens at the rear of 238 and 240, Harehills Avenue, collapsed. After the service of notice upon the owners, the Department repaired the culvert at a cost of £240. Of this amount, £180 was defrayed by the local authority, and £60 was recovered from the owners.

Smoke Abatement.—A survey of the central areas was commenced, for the purpose of collecting data with regard to the possibility of establishing a smokeless zone ; this survey is not yet completed.

There was a further intensification of smoke abatement activities and a great deal of progress was made during the year.

A total of 640 formal smoke emission records were taken, grit deposits being recorded in 72 cases. Where infringements of the Smoke Abatement Byelaws were found, warning was given by the Inspector in each case. In 193 cases of technical difficulty the Supervisory Inspector carried out survey and examination of the boiler plant for the purpose of advising with regard to the abatement of smoke nuisances.

Informal notices calling for the abatement of smoke nuisances were served in 15 cases and statutory notices had to be served in 2 cases.

Soot fall and sulphur pollution records were continued and are preserved for future publication.

Infirm and Diseased Persons.—The number of cases of infirm and sick persons living under insanitary conditions brought to the attention of the Department showed a decrease. During the year 40 visits were paid to cases of this kind. In many instances premises were cleansed and arrangements made for the care and welfare of the aged persons. The voluntary removal of infirm and sick persons unable to look after themselves was effected in 5 instances by persuasion. It was not necessary to apply to the Court for an order for compulsory removal in any case.

Articles exchanged for Rags.—During the year one person was prosecuted for an offence against the provisions of Section 154 of the Public Health Act, 1936, the offender being fined £5.

Offices.—A total of 588 inspections were made and the following is a summary of the defects found and remedied :—

Insufficient ventilation	5
Overcrowding	2
Insufficient or unsuitable sanitary accommodation	13
Other defects	1

Under the Public Health Act, 1936, 22 preliminary notices were served.

Shops.—The total number of inspections of shops was 1,518 and action was taken under the Shops Act, 1934, in respect of the defects found, 83 preliminary and 14 statutory notices being served. The following is a summary of the defects remedied :—

Ventilation improved	1
Reasonable temperature secured	10
Sufficient conveniences provided	43
Lighting provided	1
Washing facilities provided	16
Canteen facilities provided	2
Other defects remedied	46

Factories.—The total number of inspections of factories was 5,428 and the defects found at these inspections necessitated the service of 807 written notices under the Factories Act, 1937. Examination was made of 629 out-workers' premises. The table of statistics with regard to conditions in factories and to home work appears on pages 137 and 138.

Ice-cream, Food Preparation and Storage Premises.—A total of 5,805 visits were paid to premises used for the sale, storage or manufacture and preparation of foodstuffs, and details of these visits are given in the analysis of inspections set out on page 133. It was necessary to serve 140 informal notices in respect of premises contravening the law, and in 4 instances statutory notices had to be served. A survey of all the ice-cream manufacturing premises was carried out and a beginning made to the systematic improvement of those found to be unsuitable.

Particulars with regard to registration of premises under Section 14 of the Food and Drugs Act, 1938, are set out in the following table :—

REGISTRATION.

Number of premises registered for the manufacture for sale of ice-cream during 1946	7
Number of premises registered for the sale of ice-cream during 1946	51
Number of premises registered for the preparation or manufacture of sausages or potted, pressed, pickled or preserved food intended for sale	23
Number of notifications of change of occupier received :—	
ice-cream premises	18
food preparing places	10
Number of premises on the register 31st December, 1946 :—	
(a) used for manufacture for sale of ice-cream.. ..	122
(b) used for the sale of ice-cream	459
(c) used for the storage of ice-cream intended for sale	3
(d) used for the manufacture of sausages, or preparation of preserved food	458

Mortuary Accommodation.—The number of bodies received into Marsh Lane Mortuary during the year was 486 comprising 448 admitted from streets, private houses, workshops, etc., 2 as the result of accidents on the railways, 18 from street accidents, 14 recovered from rivers and lakes and 4 unclaimed bodies. The number received in the previous year was 507.

As has been pointed out in previous reports, mortuary accommodation in the city is far from satisfactory. Marsh Lane Mortuary is small, out-of-date and inconvenient and should be replaced by a larger and more modern building as soon as the labour and material become available. In the meantime, to relieve the present situation and enable the Marsh Lane premises to be handed back to the Police to whom they rightly belong, an attempt should be made to find temporary accommodation.

WORK DONE BY SANITARY INSPECTORS, 1946.

ANALYSIS OF INSPECTIONS	EASTERN DIVISION	WESTERN DIVISION	FACTORIES SHOPS, ETC.	CITY TOTALS
DWELLINGS.				
Houses recorded under Housing Regs. :—				
1. (a) fit in all respects	28	61	..	89
2. (b) unfit and capable of repair	99	1,272	..	1,371
3. (c) unfit and incapable of repair	4	23	..	27
4. (d) underground dwellings	13	20	..	33
5. Houses for drainage	1,934	2,519	..	4,453
6. Houses for ashes accommodation	1,983	1,983	..	3,966
7. Houses for closet accommodation	626	797	..	1,423
8. Houses for complaint and defects	3,029	2,773	..	5,802
9. Houses for infectious diseases	1,362	2,690	55	4,107
10. Houses for overcrowding	112	153	..	265
11. Houses for filthy conditions	88	93	..	181
12. Houses for verminous conditions	321	319	..	640
13. Housing re-inspections	11,247	10,036	..	21,283
14. Houses let in lodgings	377	32	..	409
15. Separate dwellings within houses let in lodgings	40	15	..	55
16. Common lodging houses	228	157	..	385
17. Canal boats	149	42	..	191
18. Sites for tents, vans, sheds, etc.	57	354	..	411
19. Tents, vans or sheds	402	1,153	..	1,555
20. Visits for enquiry	2,510	2,332	6	4,848
FOOD PREMISES.				
21. Ice-cream	381	406	9	796
22. Fried Fish	507	707	..	1,214
23. Pickles and sauces	8	17	19	44
24. Sausages and pork products	82	33	22	137
25. Other registered premises	52	69	5	126
26. Bakehouses	577	651	88	1,316
27. Butchers	61	44	13	118
28. Provision merchants	28	19	33	80
29. Restaurants, cafes, kitchens	12	2	1,340	1,354
30. Other food premises	105	117	25	247
31. Visits for enquiry	245	78	50	373
TRADES AND BUSINESSES.				
32. Factories with mechanical power	2	3	4,822	4,827
33. Factories without mechanical power .. ..	..	1	586	587
34. Other premises, constructional works, etc. ..	1	..	13	14
35. Workplaces	5	..	583	588
36. Shops	1	1	1,516	1,518
37. Outworkers .. .. .	..	4	625	629
38. Offensive trades .. .. .	..	73	88	161
39. Visits for enquiry	3	29	900	932
SMOKE ABATEMENT.				
40. Smoke observations	141	259	168	568
41. Grit deposit records .. .. .	..	45	27	72
42. Boiler plant	28	15	150	193
43. Visits for enquiry	28	25	1,323	1,376
GENERAL.				
44. Rat infestations	1,898	1,041	104	3,043
45. Farms	215	34	..	249
46. Stables	122	22	..	144
47. Pig Styes	114	115	..	229
48. Poultry and other animals	60	104	..	164
49. Water supply	31	55	..	86
50. Infirm and diseased persons	30	10	..	40
51. Watercourses, ditches	93	20	..	113
52. Culverts	22	7	..	29
53. Other nuisances	360	139	4	503
54. Public conveniences	880	531	466	1,877
55. Visits for enquiry	244	139	9	392
56. No access visits	1,868	1,353	435	3,656
57. Other visits (not included above)	383	162	84	629

WORK DONE BY SANITARY INSPECTORS, 1946.—contd.

ANALYSIS OF WORK DONE	EASTERN DIVISION	WESTERN DIVISION	FACTORIES SHOPS, Etc.	CITY TOTALS
DWELLING REPAIRS AND IMPROVEMENTS.				
58. Roofs, valley gutters, flashings, etc. ..	583	1,056	..	1,639
59. Chimney stacks, flues, pots, etc. ..	175	337	..	512
60. Eaves spouts	242	409	..	651
61. Fallpipes	177	303	..	480
62. Walls, brickwork, pointing	110	406	..	516
63. Damp-proof courses provided	1	17	..	18
64. Dampness otherwise remedied	33	108	..	141
65. Wallplaster	106	267	..	373
66. Ceilings	48	81	..	129
67. Floors	38	73	..	111
68. Windows, frames, cords, etc.	141	261	..	402
69. Doors, door-frames	31	42	..	73
70. Ovens, fire-ranges, grates, etc.	140	231	..	371
71. Washing boilers, setpots, etc.	34	62	..	96
72. Sinks, lavatory basins, etc.	65	126	..	191
73. Waste pipes	156	149	..	305
74. Water supply provided	1	11	..	12
75. Food stores .. ..	..	1	..	1
76. Pavings, yards and passages	32	78	..	110
77. Repairs to water closets	371	547	..	918
78. New water closets provided	7	6	..	13
79. New pail closets provided	1	1	..	2
80. Trough closets abolished .. ..	..	1	..	1
81. Privy closets abolished	2	1	..	3
82. Pail closets abolished .. ..	..	2	..	2
83. Dustbins provided	1,680	1,176	..	2,856
84. Ashpits repaired	6	4	..	10
85. Sunken ashpits abolished	42	47	..	89
86. Other ashpits abolished	19	21	..	40
87. Other repairs to houses	145	151	..	296
88. Verminous houses disinfested	28	21	..	49
89. Dirty houses cleansed	22	14	..	36
90. Closets cleansed or limewashed	30	21	..	51
91. Underground dwellings made fit or closed .. ..	..	..	..	..
92. Other improvements to common lodging-houses	24	8	..	32
93. Other improvements to houses let in lodgings	19	..	..	19
94. Improvements to canal boats .. ..	..	..	..	..
95. Improvements to caravan sites	2	4	..	6
FOOD PREMISES.				
96. Walls, ceilings, floors, etc., repaired ..	26	38	15	79
97. Walls, ceilings, floors, etc., cleansed ..	41	109	48	198
98. Ventilation provided or improved	9	15	2	26
99. Articles, apparatus, clothing cleansed ..	3	2	..	5
100. Washing facilities provided	8	12	5	25
101. Washing facilities maintained	3	1	1	5
102. Other improvements	31	33	6	70
TRADES AND BUSINESSES.				
FACTORIES.				
103. Rooms cleansed	1	..	26	27
104. Rooms ventilated .. ..	..	..	1	1
105. Reasonable temperature secured .. ..	..	..	2	2
106. Overcrowding abated .. ..	..	..	..	..
107. Floors drained .. ..	..	..	..	..
108. Insufficient conveniences remedied .. ..	..	..	43	43
109. Unsuitable/defective conveniences remedied .. ..	..	..	1,249	1,249
110. Conveniences made separate for sexes .. ..	..	..	179	179
111. Other offences remedied .. ..	..	..	464	464
112. Absence of abstract noted .. ..	..	..	27	27
WORKPLACES.				
113. Rooms ventilated .. ..	..	..	5	5
114. Overcrowding abated .. ..	..	..	2	2
115. Rooms cleansed .. ..	..	..	1	1
116. Sufficient conveniences provided .. ..	..	..	13	13

WORK DONE BY SANITARY INSPECTORS, 1946.—contd.

ANALYSIS OF WORK DONE	EASTERN DIVISION	WESTERN DIVISION	FACTORIES SHOPS, Etc.	CITY TOTALS
TRADES AND BUSINESSES (Continued)				
SHOPS.				
117. Ventilated .. .. .	..	..	1	1
118. Reasonable temperature secured .. .. .	..	..	10	10
119. Sufficient conveniences provided .. .. .	..	..	43	43
120. Lighting provided .. .. .	..	..	1	1
121. Washing facilities provided .. .. .	..	1	15	16
122. Meals facilities provided .. .. .	..	..	2	2
123. Other defects remedied .. .. .	..	..	46	46
OFFENSIVE TRADES.				
124. Byelaw offences remedied .. .. .	..	..	..	..
125. Other improvements secured .. .. .	..	..	..	..
SMOKE ABATEMENT.				
126. Furnaces newly provided .. .. .	..	..	6	6
127. Furnaces altered, repaired or renewed	3	..	2	5
128. Chimneys newly erected .. .. .	..	1	5	6
129. Chimneys extended or improved .. .. .	..	1	7	8
130. Firms adopting smokeless fuel	1	..	..	1
GENERAL.				
131. Rats caught, killed or poisoned	363	170	257	790
132. Premises cleared of rats	40	9	4	53
133. Premises rendered rat-proof	19	14	2	35
134. Farm improvements	4	..	..	4
135. Watercourses cleansed	2	..	..	2
136. Culverts cleansed or maintained .. .. .	..	..	..	..
137. Poultry-house improvements	4	1	..	5
138. Pig-sty improvements	3	2	..	5
139. Offensive matter removed	17	5	2	24
140. Manure removed	13	..	..	13
141. Manure-steads built or repaired	1	..	..	1
142. Public convenience repairs and painting	26	23	8	57
143. Other nuisances abated	81	25	8	114
DRAINAGE.				
144. Drains repaired	113	124	18	255
145. Drains relaid	30	47	22	99
146. New drains laid	16	22	11	49
147. Drains cleansed	583	415	74	1,072
148. Public sewers maintained	21	20	2	43
149. Public sewers cleansed	56	68	1	125
150. Ball and water tests	61	48	8	117
151. Other tests	524	364	49	937
152. Gullies renewed or provided	36	34	19	89
153. Soilpipes and ventilating pipes	23	3	2	28
154. Inspection Chambers	6	3	6	15
155. Cesspools repaired or provided .. .. .	..	2	..	2
156. Cesspools emptied	7	..	..	7
157. Cesspools abolished .. .. .	..	1	..	1

FACTORIES

1.—INSPECTION.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions
Factories with mechanical power ..	4,827	706	..
Factories without mechanical power..	587	101	..
Other premises (including constructional works)	14	..	..
Total	5 428	807	..

2.—DEFECTS FOUND

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
Want of cleanliness (S. 1)	26	27	..	..
Overcrowding (S. 2) .. ..	..	..	..	..
Unreasonable temperature (S. 3) ..	2	2	..	..
Inadequate ventilation (S. 4) ..	1	1	..	..
Ineffective drainage of floors (S. 6)	..	..	..	..
Sanitary Conveniences (S. 7)—				
Insufficient	59	43	..	..
Unsuitable or defective	1,247	1,249	..	..
Not separate for sexes	297	179	..	..
Other offences	438	464	..	..
Absence of Abstract (S. 114) ..	27	..	27	..
Total	2,097	1,965	27	..

NOTE.—The defects found under Sections 1, 2, 3, 4 and 6 relate only to factories without mechanical power. Those under Sections 7 and 114 and of the Public Health Act, 1936, are in respect of both types of factory.

3, 4, 5.—OTHER MATTERS.

	Number of		
	Lists.	Outworkers.	
Homework :—			
<i>List of Outworkers (S. 110) :—</i>			
Lists received twice in the year	312	C. 490	W. 1,844
„ once in the year	27	12	114
Addresses of \ received from other Authorities ..		106	
outworkers / forwarded to other Authorities		126	
Notices to occupiers as to keeping or sending lists ..		349	
Prosecutions.. .. .		..
Inspection of Homeworkers' premises		629	
<i>Homework in unwholesome premises :—</i>			
Instances		2	
Notices (S. 111) .. .. .		..
Prosecutions.. .. .		..
<i>†Homework in infected premises :—</i>			
Instances		2	
Orders made } Public Health Act, 1936 (S. 153) ..		..
Prosecutions }		..	
[Infectious cases removed, disinfection carried out under ordinary powers.]			
Factories on the Register (S. 8) at the end of year :—			
With mechanical power		2,870	
Without mechanical power		681	
Total number of factories on Register		3,551	
The above total includes 257 bakehouses.			
Matters notified to H.M. Inspectors of Factories :—			
Failure to affix Abstract of the Factories Act 1937 (S. 128)		27	
Action taken in matters referred by	{	Notified by H.M. Inspector ..	80
H.M. Inspectors		Reports (of action taken) sent to H.M. Inspectors..	23

† 2 Scarlet Fever.

Housing.

Number of Houses.—The total number of houses in the city on December 31st, 1946, was 151,383, made up approximately of 59,909 back-to-back houses and 92,474 through houses.

Empty Houses.—At the end of the year there were 1,030 unoccupied houses in the city.

New Houses.—The number of new houses completed during the year was 828, of which 600 were permanent and 228 temporary.

Housing Shortage.—The number of applications for houses standing in the registers at the Housing Department on December 31st, 1946, was 22,839.

Housing Act, 1936 (Part IV, Sections 57 to 68.—Prevention and Abatement of Overcrowding).—The difficult question of housing shortage still remains and rendered it impossible to do more as regards overcrowding than to relieve the most serious cases.

(a) *Municipal Estates.*—There are 22,496 occupied dwelling-houses on the Municipal Housing Estates in the city, and the average percentage of overcrowding during the year was 2.55.

(b) *Privately Owned Houses.*—There were living in overcrowded conditions 137 families which have been re-housed during the year. Of these 128 have been accommodated in municipal dwellings and 9 families in requisitioned dwellings.

Applications for Licences to Permit Temporary Overcrowding.—There have been no applications during the year.

Reports of Overcrowding by the Medical Officer of Health.—During the year 33 cases of overcrowding were reported, of which 5 were new cases. None of the families concerned were provided with suitable alternative accommodation on the municipal housing estates.

Certificates of Permitted Numbers.—The number of certificates of permitted numbers issued during the year was 564 making a total of 87,706 certificates issued since the Act became operative.

Verminous Houses.—The disinfestation of 413 houses on the municipal housing estates has been carried out during the year by outside contractors on behalf of the Housing Committee.

Unfit Houses.—Housing Act, 1936 (Section 9).—The number of houses inspected and found not to be in all respects reasonably fit for human habitation was 1,398 ; and 1,088 houses were repaired in response to notices served under this Section.

Public Health Act, 1936.—Houses numbering 6,567, found to be defective in one respect or another were repaired in response to notices served under this Act.

Unhealthy Areas.—Demolition work in the different Unhealthy Areas has continued during the year, the total number of houses demolished being 41.

HOUSING ACT, 1936, PART IV.—OVERCROWDING.

January 1st to December 31st, 1946.

Number of cases of overcrowding discovered in houses owned by the Corporation	437
Number of cases of overcrowding in houses owned by the Corporation which have been relieved	159
Number of overcrowding cases relieved during the year in course of slum clearance operation .. .. .	..
A. (1) No. of dwellings known to be overcrowded at the end of the year ..	2,142
(2) No. of families dwelling therein ..	2,552
(3) No. of persons dwelling therein ..	15,229
B. No. of new cases of overcrowding reported during the year	1,409
C. (1) No. of cases of overcrowding relieved during the year	458
(2) No. of persons concerned in such cases	3,243
D. Particulars of any cases in which dwelling-houses have again become overcrowded after the Local Authority have taken steps for the abatement of overcrowding	79

HOUSING ACT, 1936.

Table showing the number of houses examined by the Medical Officer of Health as part of the general survey of the town during the year ended December 31st, 1946, and the numbers represented or otherwise dealt with, pursuant to the Housing Acts, with the corresponding figures for 1944 and 1945.

	1944.	1945.	1946.
Number of new houses erected during the year ..	11	23	828
(i) By the Local Authority .. .. .	..	..	440
(ii) By other bodies and persons	11	23	388
I Inspection of dwelling-houses during the year.			
(1) Total number of dwelling-houses inspected for housing defects under Public Health or Housing Acts and the number of inspections made	11,202	11,610	12,449
(2) Number of dwelling-houses (included under Sub-head (1) above) which were inspected and recorded under the Housing Consolidated Regulations, 1925, and the number of inspections made .. .. .	..	..	89
(3) Number of dwelling-houses found to be in a state so dangerous or injurious to health as to be unfit for human habitation	77	..	27
(4) Number of dwelling-houses (exclusive of those referred to under the preceding sub-head) found not to be in all respects reasonably fit for human habitation	488	676	703
2 Remedy of Defects during the year without Service of Formal Notices.			
Number of defective dwelling-houses rendered fit in consequence of informal action taken by the Local Authority or their Officers	227	480	601
3 Action under Statutory Powers during the year.			
A.—Proceedings under Section 9 of the Housing Act, 1936.			
(1) Number of dwelling-houses in respect of which notices were served requiring repairs	256	373	385
(2) Number of dwelling-houses which were rendered fit after service of Formal Notices :—			
(a) By owners	140	224	487
(b) By Local Authority in default of owners	12	22	11
B.—Proceedings under the Public Health Acts.			
(1) Number of dwelling-houses in respect of which notices were served requiring defects to be remedied	11,424	10,565	9,507
(2) Number of dwelling-houses in which defects were remedied after service of formal notices :—			
(a) By owners	9,660	7,820	1,810
(b) By Local Authority in default of owners	24	75	57
C.—Proceedings under Sections 11 and 12 of the Housing Act, 1936.			
(1) Number of dwelling-houses in respect of which Demolition or Closing Orders were made	3	..	19
(2) Number of dwelling-houses demolished in pursuance of Demolition Orders	3	..	..

HEALTH EDUCATION AND PROPAGANDA

BY

JOHN F. WARIN, M.D., Ch.B., D.P.H.,
Deputy Medical Officer of Health.

The Health Committee, as in previous years, delegated its responsibility for Health Education to the Leeds Committee for Social Hygiene and Health Publicity. This service was once again freely and generously given by the Chairman and Members of that Committee.

During the year the Committee felt that the time was opportune for an expansion of Health Education work in the city and after a number of ideas had been discussed it was decided to experiment by opening a Health Education Centre. Premises were eventually secured at 4, Lands Lane, and have proved suitable except that the accommodation is rather limited. They consist of a ground floor room having extensive shop window space suitable for display purposes and a basement which has been adapted into a very cosy cinema to seat 50 persons. The aim of the Centre is to cover as far as possible the whole field of Health Education in a series of 12 fortnightly periods, each devoted to a particular subject. Films relating to the subject material of each display will be shown in the cinema, and programmes lasting approximately 40 minutes will be given at hourly intervals.

The Centre was opened by the Lord Mayor of Leeds (Councillor Sir George Martin, K.B.E.) on 10th January, 1947, and a further description will therefore be given in next year's report.

The Health Education Centre has been the main pre-occupation of the Committee during the year but whenever opportunity has offered full use has been made of posters, leaflets, films, lectures, the press, etc., in furthering Health Education work in the city.

The Central Council for Health Education is now the national body recognised by the Government and Local Authorities for the co-ordination of all Health Education work and the regional office of the Central Council has undertaken some local propaganda work in the city, but owing to a change of appointment and the subsequent illness of the Regional Organiser, this has not been as extensive as had been planned.

The National propaganda campaigns in connection with Venereal Diseases and the Prevention of Diphtheria have been supported locally.

Representatives of the Committee attended conferences of the British Social Hygiene Council and two members have been nominated to attend a Summer School organised by the Central Council for Health Education to be held in Oxford in the summer of 1947.

STAFF CHANGES.

Robert Lees, M.D., M.B., Ch.B., F.R.C.P., appointed Venereal Diseases Officer, March 1946, in place of J. P. Bibby, M.B., Ch.B., M.R.C.P. deceased.

W. McIntosh, M.B., Ch.B., Acting Director of Municipal General Hospitals and Acting Medical Superintendent at St. James's Hospital appointed Director of Municipal General Hospitals and Medical Superintendent (resident) at St. James's Hospital, April 1946.

J. F. Warin, M.D., Ch. B., D.P.H., appointed Deputy Medical Officer of Health July 1946, in place of F. Roy Dennison, M.D., D.P.H., resigned.

James A. Dixon, M.R.C.V.S., Chief Veterinary Officer resigned September 1946, after 41 years service (vide opening letter).

James Goodfellow, M.R.San.I., A.M.I.S.E., Chief Sanitary Inspector appointed Chief Meat and Foods Inspector and Chief Inspector under the Diseases of Animals Acts in succession to James A. Dixon, M.R.C.V.S.

F. Ridehalgh, M.A., M.B. (Cantab), M.R.C.P. (Lond.), Acting Chief Clinical Tuberculosis Officer appointed Chief Clinical Tuberculosis Officer, September 1946, vice Dr. Norman Tattersal, resigned August, 1943.

J. Aspin, M.A., M.D. (Cantab), M.R.C.S., L.R.C.P., D.M.R.D., appointed Assistant Medical Director Mass Miniature Radiography, September 1946, in place of M. G. Magan, M.B., Ch.B., D.M.R., resigned.

Rev. Horace T. Matthews appointed Chaplain at St. James's Hospital, October 1946, in place of Rev. Raymond Whitwell, resigned.

A. A. Driver, M.D., M.B., Ch.B., D.P.H., Acting Medical Superintendent, Killingbeck Sanatorium, appointed Deputy Medical Superintendent St. James's Hospital (Inner Group of Municipal General Hospitals), October 1946.

J. W. Affleck, M.B., Ch.B., F.R.F.P.S., D.P.M., Acting Medical Superintendent Outer Group of Municipal General Hospitals appointed Deputy Medical Superintendent St. James's Hospital (Outer Group of Municipal General Hospitals), October 1946.

M. N. M. Paulin, M.B., Ch.B., B.A.O., D.P.H., appointed Assistant Medical Officer for Maternity and Child Welfare, October 1946.

MINISTRY OF HEALTH TABLES.

TABLE I.

VITAL STATISTICS OF WHOLE DISTRICT DURING 1946 AND PREVIOUS YEARS.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.			TOTAL DEATHS REGISTERED IN THE DISTRICT.		TRANSFERABLE DEATHS.		NET DEATHS BELONGING TO THE DISTRICT.			
		Un-corrected Number.	Nett.		Number.	Rate.	Of Non-residents registered in the District.	Of Residents not registered in the District.	Under 1 Year of Age.		At all Ages.	
			Number.	Rate.					Number.	Rate per 1,000 Net Births.	Number.	Rate.
1	2	3	4	5	6	7	8	9	10	11	12	13
1930	478,500	7,905	7,568	15.8	6,235	13.0	544	239	512	68	5,930	12.4
1931	486,400	7,557	7,219	14.8	6,810	14.0	553	249	552	76	6,506	13.4
1932	484,900	7,368	7,004	14.4	6,771	14.0	550	248	617	88	6,469	13.3
1933	485,000	7,070	6,643	13.7	6,851	14.1	538	261	537	81	6,574	13.6
1934	486,250	7,691	7,190	14.8	6,666	13.7	619	244	513	71	6,291	12.9
1935	487,200	7,751	7,211	14.8	6,763	13.9	576	245	463	64	6,432	13.2
1936	489,800	7,845	7,340	15.0	7,003	14.3	620	283	476	65	6,666	13.6
1937	491,860†	7,844	7,279	14.8	6,915	14.1	656	314	491	67	6,573	13.4
1938	494,000	8,159	7,614	15.4	6,592	13.3	597	260	490	64	6,255	12.7
1939	(a) 497,000 (b) 488,000	7,434	7,079	14.2	6,821	14.0	619	333	401	57	6,535	13.4
1940	465,700	7,459	6,946	14.9	7,178	15.4	638	378	395	57	6,918	14.9
1941	471,930	7,027	6,667	14.1	6,610	14.0	655	501	407	61	6,456	13.7
1942	462,400	7,355	7,204	15.6	6,256	13.5	589	423	369	51	6,090	13.2
1943	453,900	7,830	7,547	16.6	6,532	14.4	595	421	356	47	6,358	14.0
1944	451,100	8,611	8,518	18.9	6,314	14.0	601	411	429	50	6,124	13.6
1945	451,670	8,258	7,760	17.2	6,580	14.6	595	425	438	56	6,410	14.2
1946	481,570	10,267	9,886	20.5	6,795	14.1	570	389	401	41	6,614	13.7

Area of District in acres (land and inland water) } 38,296.5
Total population at all ages at the 1931 Census 482,809

† Population adjusted to allow for change in boundary during the year. The mid-year population after the change is 491,880.
(a) Population used for calculation of birth-rate.
(b) do. do. death-rate.

APPENDIX 2.

TABLE II. CASES OF INFECTIOUS DISEASES ORIGINALLY NOTIFIED BEFORE ALTERATION OF DIAGNOSIS DURING THE CALENDAR YEAR 1946.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.																Total Cases removed to Hospital.
	At all Ages.				At Ages—Years.												
	Under 1.		1 and under 5 years.		5 and under 15 years.		15 and under 25 years.		25 and under 45 years.		45 and' 65 years.		65 and upwards.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
Small-pox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera (C.) Plague (P.)	106	138	3	3	25	23	42	42	15	33	18	34	3	3	..	105	135
Diphtheria (including Membranous Croup)	48	96	..	..	2	1	2	..	1	4	12	21	23	52	8	25	27
Erysipelas	464	575	2	..	126	116	273	365	40	60	18	31	5	3	..	365	462
Scarlet Fever	446	458	23	41	306	296	115	109	..	9	2	2	..	..	1	11	8
Measles	786	859	85	79	503	565	191	207	1	3	..	5	..	..	..	30	41
Whooping Cough .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Typhus Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	6	4	..	1	..	..	3	1	1	2	1	..	1	..	..	3	4
Relapsing Fever (R.) Continued Fever (C.) .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Pyrexia .. .. .	..	78	..	..	..	..	..	..	..	29	..	49	..	..	..	..	34
Cerebro-Spinal Meningitis	29	18	4	1	9	5	4	4	3	3	4	4	5	1	..	25	13
Poliomyelitis .. .. .	..	2	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..
Polio Encephalitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ophthalmia Neonatorum	14	9	14	9	..	..	..	..	..	..	..	..	..	..	..	2	4
Encephalitis Lethargica .. .. .	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..
Malaria	6	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Dysentery	29	49	..	1	17	17	5	6	2	11	3	10	1	3	1	11	15
Other Diseases	197	447	75	55	61	57	15	18	12	118	22	169	9	27	3	197	447
Pulmonary Tuberculosis	294 (24)	225 (25)	..	..	9 (1)	4	10	15	51 (5)	74 (7)	119 (16	96 (15)	97 (2)	32 (3)	8	4	171
Other forms of Tuberculosis	79 (4)	99 (6)	1	..	14	15	28	31 (3)	14 (1)	26 (2)	15 (3)	18 (1)	3	9	4	32	30
Pneumonia (Acute Primary)	182	137	3	5	24	16	21	22	8	11	42	29	65	29	19	25	..
" (Acute Influenzal)	20	26	2	..	..	2	1	2	..	..	..	6	6	7	4	9	..
TOTALS	2,706	3,221	212	195	1,102	1,117	710	822	149	384	267	475	219	167	47	61	1,391

The figures shown in brackets are "Transfer" Cases and are included in totals.

TABLE IIIA. ACCEPTED CASES OF INFECTIOUS DISEASES (AFTER CORRECTION OF DIAGNOSIS) DURING THE CALENDAR YEAR 1946.

NOTIFIABLE DISEASE.	NUMBER OF CASES NOTIFIED.																Total Cases removed to Hospital.
	At all Ages.				At Ages—Years.												
	Under 1.		1 and under 5 years.		5 and under 15 years.		15 and under 25 years.		25 and under 45 years.		45 and under 65 years.		65 and upwards.				
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	
Small-pox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera (C.) Plague (P.) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria (including Membranous Group)	56	76	8	11	28	28	6	19	10	15	1	1	8	16	55	73	..
Erysipelas	45	88	2	1	2	..	..	2	12	20	21	49	..	..	22	19	..
Scarlet Fever.. .. .	427	537	..	..	116	113	339	54	18	28	4	3	..	..	328	424	..
Measles	443	452	22	40	303	294	116	108	7	2	..	..	..	1	8	2	..
Whooping Cough	783	852	84	77	507	560	191	207	1	3	..	..	..	..	27	34	..
Typhus Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	3	1	..	..	1	1	..	..	1	..	1	..	..	..	..	1	..
Relapsing Fever (R.) Continued Fever (C.)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Pyrexia	79	..	..	..	..	..	..	30	..	49	..	..	..	..	..	35	..
Cerebro-Spinal Meningitis ..	7	6	1	1	2	3	..	1	2	..	3	..	..	..	3	1	..
Polio myelitis .. .. .	..	2	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..
Polio Encephalitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Ophthalmia Neonatorum	14	10	14	10	..	..	..	..	..	..	..	..	..	..	..	2	5
Encephalitis Lethargica	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Malaria	7	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..
Dysentery	24	43	..	1	15	18	4	5	2	9	1	1	1	1	6	9	..
Other Diseases	321	586	82	59	102	79	53	64	30	146	35	198	16	35	321	586	..
Pulmonary Tuberculosis	294 (24)	225 (25)	..	..	9 (1)	4	10	15	51 (5)	74 (7)	119 (16)	96 (15)	97 (2)	32 (3)	237	171	..
Other forms of Tuberculosis ..	79 (4)	99 (6)	1	..	14	15	28	31 (3)	14 (1)	26 (2)	15 (3)	18 (1)	3	4	32	30	..
Pneumonia (Acute Primary) ..	183	137	3	5	24	16	21	22	9	11	42	29	65	29	19	1	1
" (Acute Influenzal)	20	27	2	..	3	3	1	2	..	..	6	6	7	7	4	9	..
TOTALS	2,706	3,221	212	195	1,102	1,117	710	822	149	384	267	475	219	167	47	61	1,391

The figures shown in brackets are "Transfer" cases and are included in totals.

TABLE IIA. (continued).

TOTAL ACCEPTED CASES (AFTER CORRECTION OF DIAGNOSIS) IN EACH LOCALITY, (e.g., Parish or Ward) of the District.

NOTIFIABLE DISEASE.	Mull Hill and South.	Westfield.	Blenheim.	Central.	Woodhouse.	North.	Headingley.	Hyde Park.	Kirkstall.	Burmantofts.	Harehills.	Potternewton.	Roundhay.	Cross Gates and Templenewasam.	Richmond Hill.	Osmondthorpe.	East Hunslet.	Hunslet Carr and Middleton.	West Hunslet.	Beeston.	Holbeck (South).	Holbeck (North).	Armley and New Wortley.	Upper Armley.	Bramley.	Farnley and New Wortley.	City.	
Small-pox ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Cholera (C) Plague (P) ..	7	7	..	9	1	4	13	2	7	5	2	6	7	3	..	2	10	9	2	3	3	5	3	11	6	4	4	132
Diphtheria (including Membranous Croup) ..	3	4	4	8	2	5	4	4	8	11	5	18	6	..	..	2	3	9	4	3	7	5	2	1	4	3	133
Erysipelas ..	18	19	26	30	26	54	29	15	39	32	31	27	66	58	19	49	48	73	35	43	34	8	45	39	69	32	904	
Scarlet Fever..	25	11	144	19	59	24	17	16	65	16	14	12	17	36	21	21	86	68	38	124	21	9	6	7	14	5	895	
Measles ..	22	24	79	37	38	93	53	21	42	51	71	51	66	136	35	121	55	152	59	49	41	52	94	16	109	68	1,635	
Whooping Cough ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..
Typhus Fever ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever ..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4
Relapsing fever (R) Continued fever (C) ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Pyrexia ..	1	3	1	2	..	1	2	25	1	2	3	1	1	3	..	1	1	26	4	2	79
Cerebro-Spinal Meningitis ..	1	..	1	..	..	..	..	1	1	1	1	..	..	1	..	2	..	1	1	1	1	..	..	1	..	..	13
Polioencephalitis ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	2
Polio Encephalitis ..	..	..	..	..	..	..	..	..	..	..	..	3	1	..	..	..	4	..	..	..	..	..	..	..	3	..	..
Ophthalmia Neonatorum ..	2	..	..	2	..	..	..	1	..	2	..	..	..	..	..	..	..	..	..	..	2	1	..	..	..	..	..
Encephalitis Lethargica ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1
Malaria ..	..	..	1	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	7
Dysentery ..	..	..	1	3	2	6	13	1	..	2	1	..	..	1	15	18	..	..	..	..	..	..	..	..	..	..	67
Other Diseases ..	88	35	53	55	32	21	28	58	37	50	19	35	33	61	14	28	28	44	33	19	16	14	20	40	29	17	907	
Pulmonary Tuberculosis ..	8	15	25	22	11	25	21	22	35	23	25	20	21	32	14	21	5	28	23	23	12	5	15	17	30	21	519 (49)	
Other Forms of Tuberculosis ..	2	9	9	9	9	9	5	5	5	3	13	4	8	15	5	11	7	9	7	7	9	8	3	11	3	6	178 (10)	
Pneumonia (Acute primary) ..	12	4	11	5	9	12	4	6	19	12	21	10	15	33	8	26	16	25	10	4	10	4	13	11	13	7	320	
Do. (Acute Influenzal)	1	1	1	..	5	4	1	2	3	5	..	8	2	4	4	3	2	2	3	..	47
Totals ..	191	131	356	202	180	255	188	153	265	234	212	177	258	387	132	310	265	425	222	280	157	104	217	172	289	165	5,927	

The figures shown in brackets are "Transfer" Cases and are included in totals.

